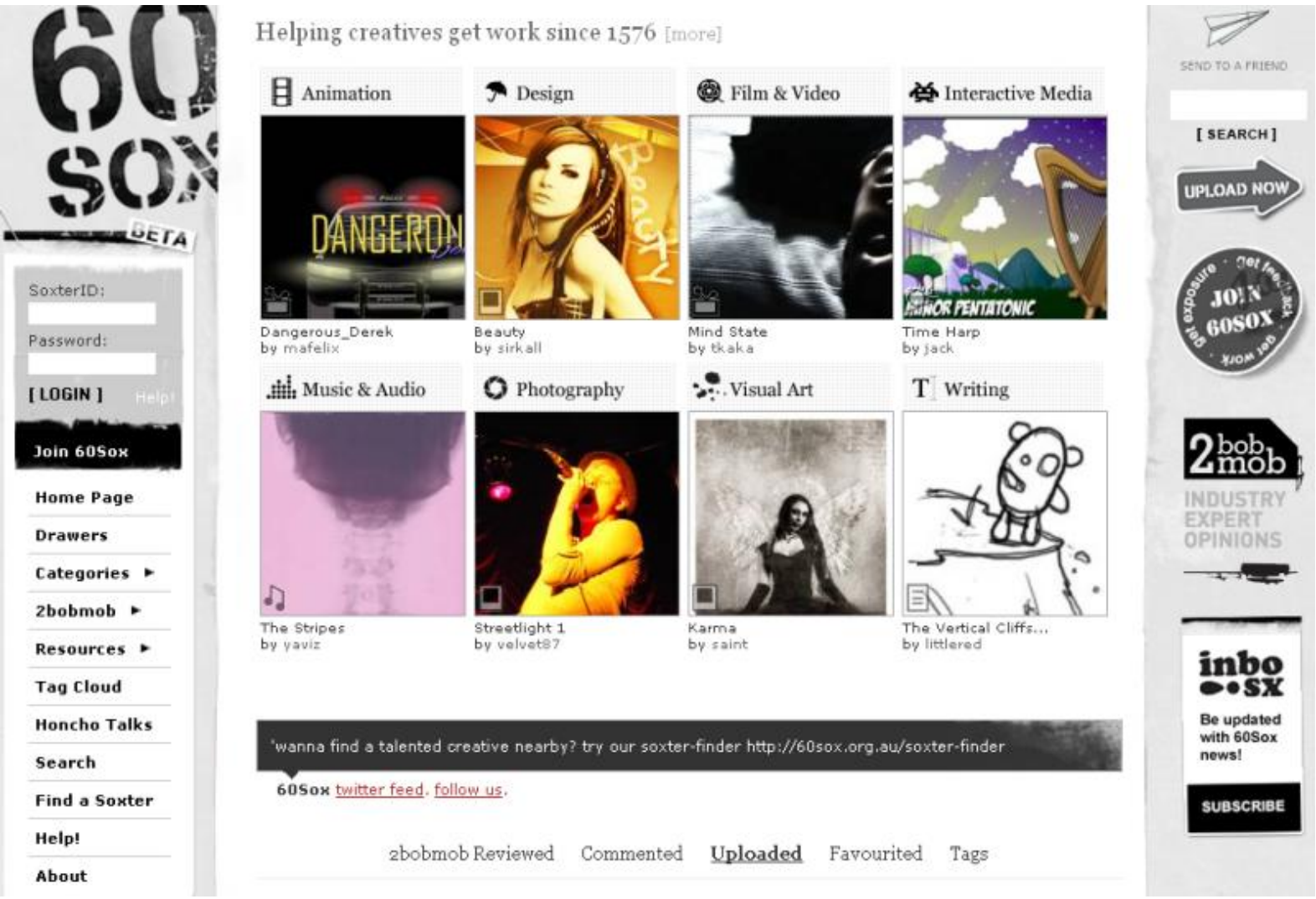

60Sox Report Volume 2

From education to work in Australia's Creative Digital Industries:

Comparing the opinions and practices of employers and aspiring creatives

January 2010

QUT

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The project team would like to thank the Australian Interactive Media Industry Association (AIMIA) for promoting the survey to its members, and Ruth Bridgstock for her statistical advice.

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Executive summary

This report represents the second of two reports that aim to explore views about the employability of aspiring creatives. The first report, released in June 2009, presented findings from a survey of 507 aspiring creatives, defined as recent graduates and/or people with less than two years industry experience. The survey gathered data on the characteristics of aspiring creatives, skills and attributes, barriers to employment, workforce mobility, career intentions, professional development activities, mentoring and industry supports, and participation in communities of practice/networks.

The second report (this report) presents findings from a project that developed the **60Sox Employer Survey** (see Attachment 1), and then administered this survey to 50 employers in Australia's Creative Digital Industries. The survey included questions on employer characteristics, recruitment and training practices, employers' views of the capabilities of aspiring creatives, and participation in communities of interest/networks, mentoring and internships.

The main purpose of the project was to identify capability gaps of aspiring creatives as well as those factors that enhance or inhibit employers' views of the capabilities of aspiring creatives – both of which impact on the ability of aspiring creatives to find work in their preferred occupations in Australia's Creative Digital Industries. To achieve this purpose, the project team set itself three objectives:

1. Describe the characteristics and practices of employers.
2. Explore the views of employers and the views of aspiring creatives in relation to the capabilities of aspiring creatives.
3. Identify the factors that influence employers' views of the capabilities of aspiring creatives.

The project approach had three limitations. Firstly, respondents were not a representative sample of employers in Australia's Creative Digital Industries. Secondly, the small sample size resulted in higher standard errors. Thirdly, the survey design that did not allow for detailed responses. The project team used frequencies, descriptives and cross-tabulations to analyse the data.

This report consists of six (6) sections: Executive summary (this section), data collection and analysis, a section for each objective, and conclusion. Key findings for each of the three objectives are as follows.

Objective 1: Describe the characteristics and practices of employers.

- Employers who responded to the survey were typically small, established businesses operating within the Software and Digital Content industry sector/segment; and located in New South Wales, Victoria or Queensland.
- Employers were most likely to indicate employing graphic designers and programmers.
- Over 80% of employers indicated that aspiring creatives only accounted for between 0% and 20% of all workers.
- Over the previous 12 months, 56% of employers surveyed had recruited new workers, particularly graphic designers and programmers, with around half of the new workers sourced from interstate and overseas.

- Employers were most likely to indicate an intention to recruit programmers over the next 12 months.
- Employers were more attracted to 'creative talent and/or the necessary job skills' than qualifications when employing aspiring creatives.
- Employers preferred to use word of mouth, networks and websites to recruit new workers.
- Employers were most likely to indicate that it was 'difficult' to recruit aspiring creatives with the 'right' skills and attributes.
- Over the previous 12 months, employers had 'sometimes' or 'often' provided training in a range of areas to aspiring creatives and all workers.
- Over the previous 12 months, the majority of employers participated in communities of interest/ networks, 40% mentored aspiring creatives, and 42% offered internships to aspiring creatives.

Objective 2: Explore the views of employers and the views of aspiring creatives in relation to the capabilities of aspiring creatives.

- Employers ranked team work skills, communication skills, motivation, problem-solving skills, and adaptability as the most important skills and attributes to their workplaces.
- Employers were most likely to indicate the capabilities of aspiring creatives for all 15 skills and attributes included in the employer survey were below their expectations when compared to the level of importance they placed on these skills and attributes to their workplaces.
- When compared to the views of employers, aspiring creatives over-rated their capabilities for 13 of the 15 skills and attributes as well as their software skills; and slightly under-rated their capabilities in the areas of business skills, positive self-esteem and motivation.
- Overall, employers were most likely to rate the importance of skills and attributes to their workplaces as 'high' and the capabilities of aspiring creatives as 'moderate', whereas aspiring creatives were most likely to rate their capabilities as 'moderate' to 'high'.

The two measures of capability gaps identified the largest capability gaps of aspiring creatives:

- The differences between the mean 'importance' ratings of employers and mean 'capability' ratings of employers indicated aspiring creatives have the largest capability gaps in the areas of problem-solving skills, communication skills, initiative & enterprise skills, self-management skills, and team work skills.
- The differences between employers' views of the capabilities of aspiring creatives and aspiring creatives' views of their own capabilities indicated aspiring creatives have the largest capability gaps in the areas of learning skills, careers goals/planning skills, and self-management skills.

Objective 3: Identify the factors that influence employers' views of the capabilities of aspiring creatives.

Table 23 on page 46 summarises the factors that contribute to employers' views that aspiring creatives have *higher* or *lower* capabilities for six key skills areas - team work skills, communication skills, problem-solving skills, initiative & enterprise skills, learning skills, and job-specific skills.

The factors common to most of the six skills areas are as follows:

- *Enabling factors* - Employers who employ visual artists and animators, and/or find it 'easy/very easy' to recruit the 'right' graduates were most likely to indicate *higher* levels of capability of aspiring creatives.
- *Inhibiting factors* - Employers from the Architecture, Design and Visual Arts sector and/or have operated for less than five (5) years were most likely to indicate *lower* levels of capability of aspiring creatives.

Data collection and analysis

The online survey of employers in Australia's Creative Digital Industries (see Attachment 1) consisted of questions in the following areas:

- Characteristics of employers - Industry sector/segment, organisation type, location, workers, and years operating
- Recruitment and training practices - Recruitment patterns, intentions and methods; and training provision
- Skills and attributes of aspiring creatives - Importance of selected skills and attributes to employers, and capability of aspiring creatives in relation to these skills and attributes
- Other - Participation in physical and online communities of interest/networks, mentoring, and internships.

To address the second objective (i.e. Explore the views of employers and the views of aspiring creatives in relation to the capabilities of aspiring creatives), the project team aligned the questions related to skills and attributes in the employer survey to questions in the aspiring creatives survey. Similar to the aspiring creatives survey, the employer survey included questions about the capability of aspiring creatives for eight (8) key skills and four (4) of the 13 personal attributes from the *Employability Skills Framework* (Business Council of Australia and the Australian Chamber of Commerce and Industry, 2002)[1]:

- Key skills - Communication skills, team skills, problem-solving skills, initiative & enterprise skills, planning and organising skills, self-management skills, learning skills, and technology skills
- Personal attributes - Positive self-esteem, motivation, adaptability, and personal presentation.

The employer survey also included questions on job-specific skills, business skills, career goals/planning skills, and software skills.

The project team used the convenience sampling approach to recruit 50 employers. They utilised the 60Sox network to attract participants, particularly the Australian Interactive Media Industry Association (AIMIA) that promoted the survey on its website. However, this sampling approach meant that respondents were not a representative sample of employers in Australia's Creative Digital Industries. Over 90% of respondents were located in New South Wales, Victoria and Queensland; and 54% belonged to the Software and Digital Content sector/segment. Other limitations were the small sample size, resulting in higher standard errors; and the survey design that did not allow employers to provide detailed responses. For example, employers were not able to explain why aspiring creatives only accounted for a small proportion of all workers or what prevented some of them from mentoring aspiring creatives and offering internships.

The project team used frequencies, descriptives and cross-tabulations to analyse the data. The small sample size restricted the use of more rigorous procedures that indicate significance levels.

[1] Business Council of Australia and the Australian Chamber of Commerce and Industry (2002). *Employability Skills for the Future*. Canberra: Commonwealth of Australia.

The employers

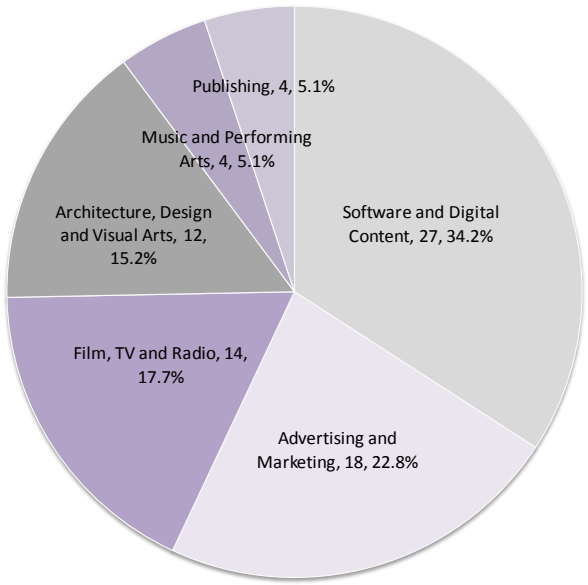
This section aims to address the first objective of this report: **Describe the characteristics and practices of employers**.

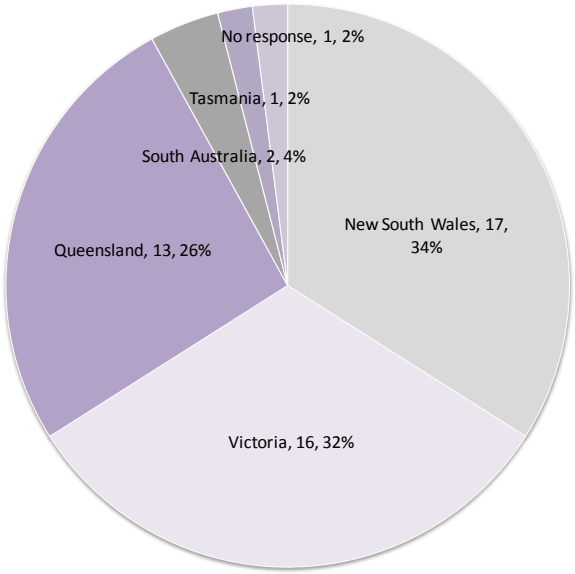
Employers characteristics

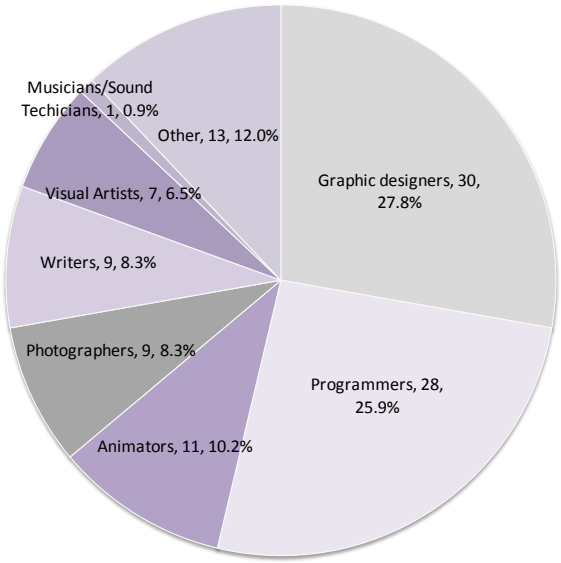
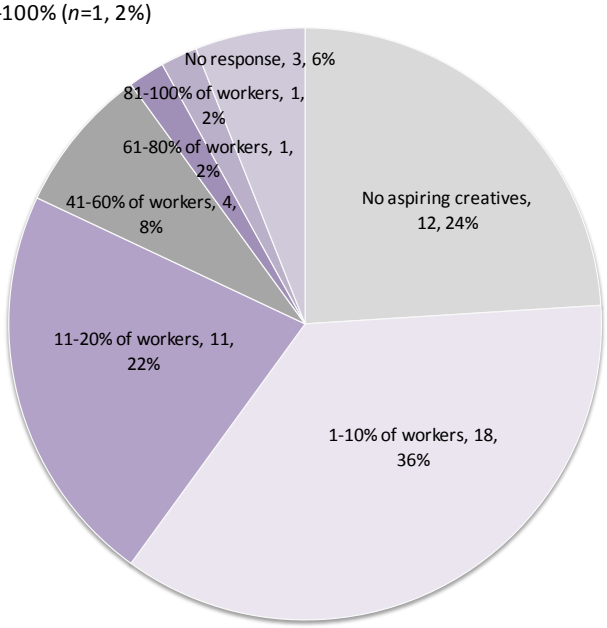
Fifty (50) employers completed the employer survey. The data presented in Table 1 indicate that a typical employer was:

- from the Software and Digital Content industry sector/segment
- an established small business
- located in New South Wales, Victoria or Queensland
- employed graphic designers and programmers, at a three-quarter workload
- employed a low proportion of aspiring creatives – over 80% of employers indicated that aspiring creatives only accounted for between 0% and 20% of all workers

Table 1. Characteristics of employers

Survey question	Results	Responses/ response rate
Q.1 Industry sector/segment Note: Employers may indicate more than one sector/segment	**Software and Digital Content (*n*=27, 34.2%)** Advertising and Marketing (*n*=18, 22.8%) Film, TV and Radio (*n*=14, 17.7%) Architecture, Design and Visual Arts (*n*=12, 15.2%) Music and Performing Arts (*n*=4, 5.1%) Publishing (*n*=4, 5.1%)  	Responses: *n*=49/98% RR Sector responses: *n*=79
Q.2 Type of organisation	**Business (*n*=36, 72%)** Government (*n*=7, 14%) Non-profit (*n*=4, 8%) Self-employed e.g. subcontractor (*n*=2, 4%)	Responses: *n*=49/98% RR

Survey question	Results	Responses/ response rate
Q.3 Location of organisation	**NSW (*n*=17, 34%)** VIC (*n*=16, 32%) QLD (*n*=13, 26%) SA (*n*=2, 4%) TAS (*n*=1, 2%)  	Responses: *n*=49/98% RR
Q.4 Length of time operating	Less than 2 years (*n*=6, 12%) 2-5 years (*n*=10, 20%) 6-10 years (*n*=11, 22%) **Over 10 years (*n*=21, 42%)**	Responses: *n*=48/96% RR
Q.5 Number of workers	**0-10 workers (*n*=23, 46%)** 11-50 workers (*n*=11, 22%) 51-100 workers (*n*=3, 6%) More than 100 workers (*n*=12, 24%)	Responses: *n*=49/98% RR
Q.7 Average/mean work load of workers	**77.53% of full-time load**	Responses: *n*=47/94% RR
Q.6 Employment of all workers by occupation Note: Employers may employ people from more than one of these occupations Other: Web designers, film makers, project managers/bureaucrats, variety and light entertainment (as a part of community TV across Australia), directors, producers, sound recordists, interior designers, arts workers/facilitators, customer experience strategists, videographers, and interaction designers.	**Graphic Designers (*n*=30, 27.8%)** **Programmers (*n*=28, 25.9%)** Animators (*n*=11, 10.2%) Photographers (*n*=9, 8.3%) Writers (*n*=9, 8.3%) Visual Artists (*n*=7, 6.5%) Musicians/sound technicians (*n*=1, 0.9%) Other (*n*=13, 12%)	Responses: *n*=43/86% RR Occupation responses: *n*=108

Survey question	Results	Responses/ response rate
		
11. Proportion of total workers who are aspiring creatives	None (*n*=12, 24%) **1-10% (*n*=18, 36%)** 11-20% (*n*=11, 22%) 21-40% (*n*=0, 0%) 41-60% (*n*=4, 8%) 61-80% (*n*=1, 2%) 81-100% (*n*=1, 2%) 	Responses: *n*=47/94% RR

Recruitment and training practices

The data presented in Table 2 indicate that a typical employer:

- had recruited new workers over the previous 12 months, particularly graphic designers and programmers
- intended to employ programmers over the next 12 months
- preferred to use word of mouth, networks and websites to recruit new workers

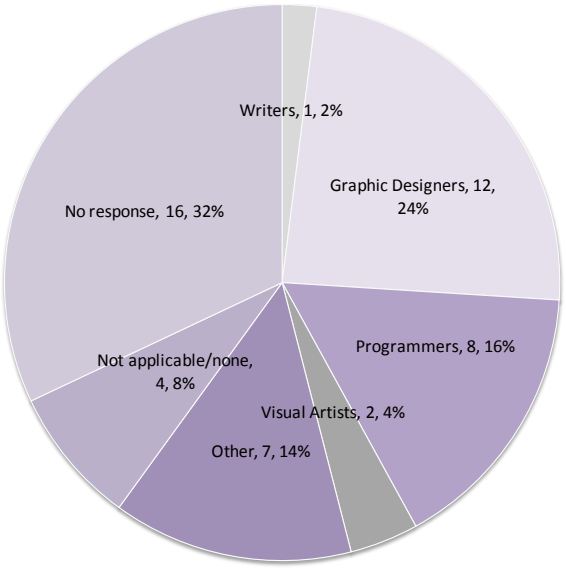
- was more attracted to 'creative talent and/or the necessary job skills' than qualifications when employing creative graduates and technical graduates
- found it 'difficult' to recruit aspiring creatives with the 'right' skills and attributes
- 'sometimes' or 'often' provided training for aspiring creatives and all workers over the previous 12 months.

Of those employers who had recruited new workers over the previous 12 months, 52% had recruited workers from interstate and 45% had recruited workers from overseas.

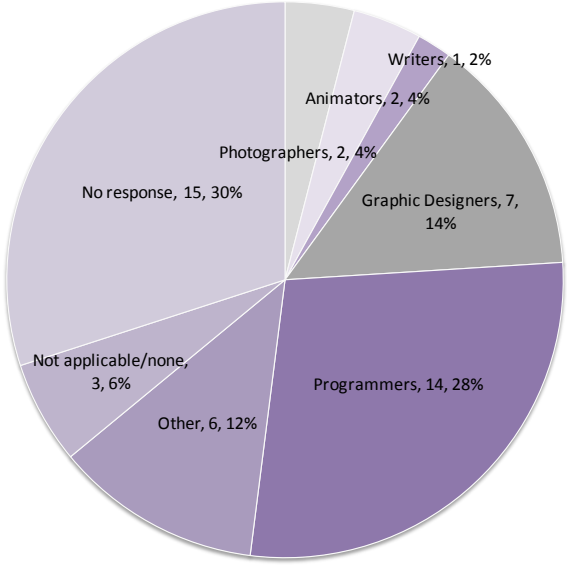
Table 2. Recruitment and training practices

Survey question	Results	Responses/ response rate
Q.36 Employment of aspiring creatives by occupation Note: Employers may employ aspiring creatives from more than one of these occupations Other: Admin/managers, admin and marketing, arts workers/facilitators, post production and special effects, recruiters, teachers/ tutors, and entrants into graduate program (focus on advertising).	Employed in previous 12 months: Animators (*n*=0, 0%) Photographers (*n*=0, 0%) Writers (*n*=1, 2%) **Graphic Designers (*n*=12, 24%)** **Programmers (*n*=8, 16%)** Visual Artists (*n*=2, 4%) Other (*n*=7, 14%) Not applicable (*n*=4, 8%)	Employed in previous 12 months: Responses: *n*=34/68% RR
	Intend to employ in next 12 months: Animators (*n*=2, 4%) Photographers (*n*=2, 4%) Writers (*n*=1, 2%) Graphic Designers (*n*=7, 14%) **Programmers (*n*=14, 28%)** Visual Artists (*n*=0, 0%) Other (*n*=6, 12%) Not applicable (*n*=3, 6%)	Intend to employ in next 12 months: Responses: *n*=35/70% RR
Other: Animators, writers, programmers of community TV, games designers, filmmakers, teachers/tutors, post production and special effects.		

Employed in previous 12 months

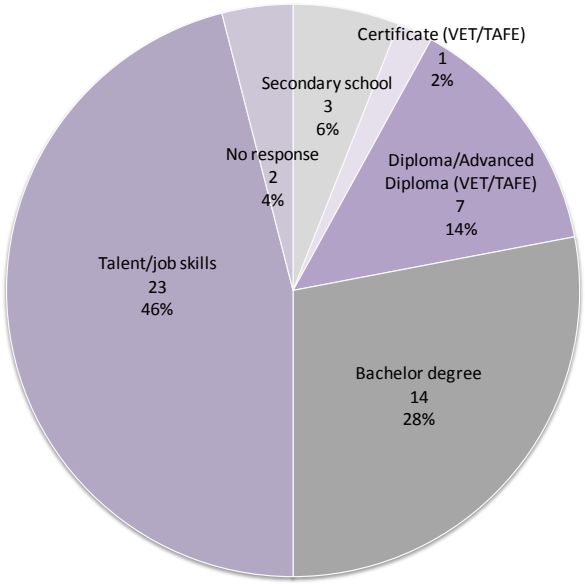


Intend to employ in next 12 months

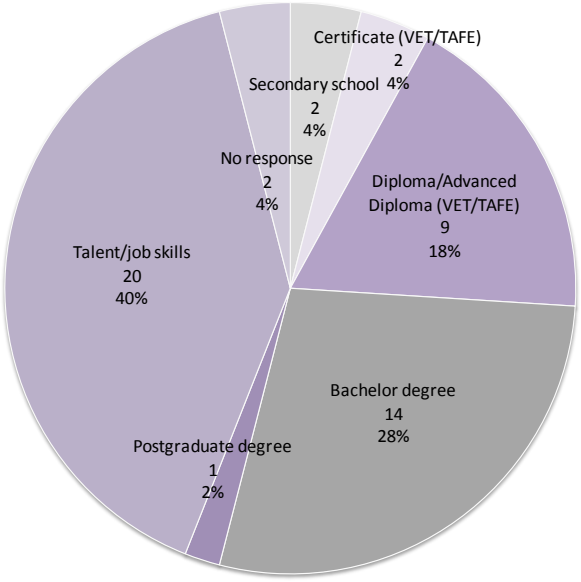


Survey question	Results	Responses/ response rate
Q.12 & Q.13 Minimum qualification/experience when employing aspiring creatives "	<u>Creative graduates:</u> **Creative talent/necessary job skills (*n*=23, 46%)** Bachelor degree (university) (*n*=14, 28%) Diploma/Advanced Diploma (VET/TAFE) (*n*=7, 14%) Secondary school (*n*=3, 6%) Certificate (VET/TAFE) (*n*=1, 2%) Postgraduate (university) (*n*=0, 0%)	Responses: *n*=48/96% RR
	<u>Technical graduates:</u> **Creative talent/necessary job skills (*n*=20, 40%)** Bachelor degree (university) (*n*=14, 28%) Diploma/Advanced Diploma (VET/TAFE) (*n*=9, 18%) Secondary school (*n*=2, 4%) Certificate (VET/TAFE) (*n*=2, 4%) Postgraduate (university) (*n*=1, 2%)	Responses: *n*=48/96% RR

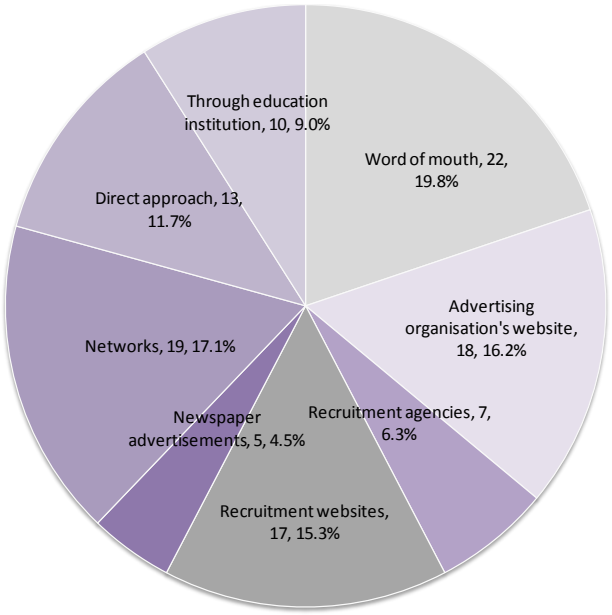
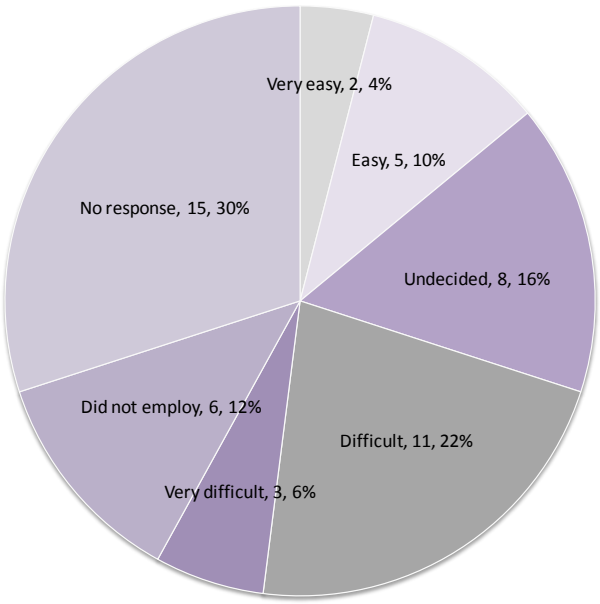
Creative graduates



Technical graduates

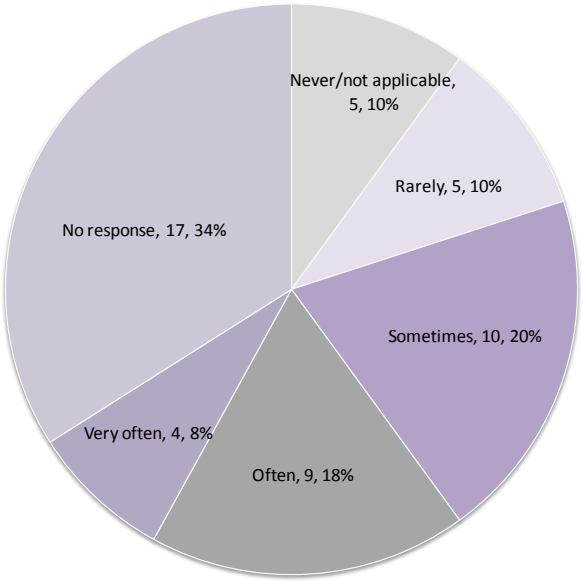


Q.40 Recruitment methods (used often/very often) Note: Employers may use more than one recruitment method	**Word of mouth (*n*=22, 44%)** Networks (*n*=19, 38%) Advertising on org website (*n*=18, 36%) Recruitment websites (*n*=17, 34%) Direct approach (*n*=13, 26%) Through education institution (*n*=10, 20%) Recruitment agencies (*n*=7, 14%) Newspaper advertisements (*n*=5, 10%)	Responses: *n*=35/70% RR Recruitment methods responses: 111

Survey question	Results	Responses/ response rate
		
Q.41 Difficulty/ease in finding aspiring creatives with the 'right' skills and attributes	1. Very easy (*n*=2, 4%) 2. Easy (*n*=5, 10%) 3. Undecided (*n*=8, 16%) **4. Difficult (*n*=11, 22%)** 5. Very difficult (*n*=3, 6%) Did not employ over previous 12 months (*n*=6, 12%)	Responses: *n*=35/70% RR *Mean (1.Very easy to 5.Very difficult):* 3.28 (*SD*=1.099)
		
Q.9 and Q.38 Training given to workers over the previous 12 months **See Table 3 on the next page for type of training provided**	<u>Aspiring creatives:</u> 1. Never (*n*=2, 4%) 2. Rarely (*n*=5, 10%) **3. Sometimes (*n*=10, 20%)** **4. Often (*n*=9, 18%)** 5. Very often (*n*=4, 8%) Not applicable (*n*=3, 6%)	<u>Aspiring creatives:</u> Responses: *n*=33/66% RR *Mean (1.Never to 5.Very often):* 3.27 (*SD*=1.112)

Survey question	Results	Responses/ response rate
	<u>All workers:</u> 1. Never (*n*=4, 8%) 2. Rarely (*n*=8, 16%) **3. Sometimes (*n*=16, 32%)** **4. Often (*n*=17, 34%)** 5. Very often (*n*=3, 6%) Not applicable (*n*=0, 0%)	<u>All workers:</u> Responses: *n*=48/96% RR *Mean (1.Never to 5.Very often):* 3.15 (*SD*=1.052)

Aspiring creatives



All workers

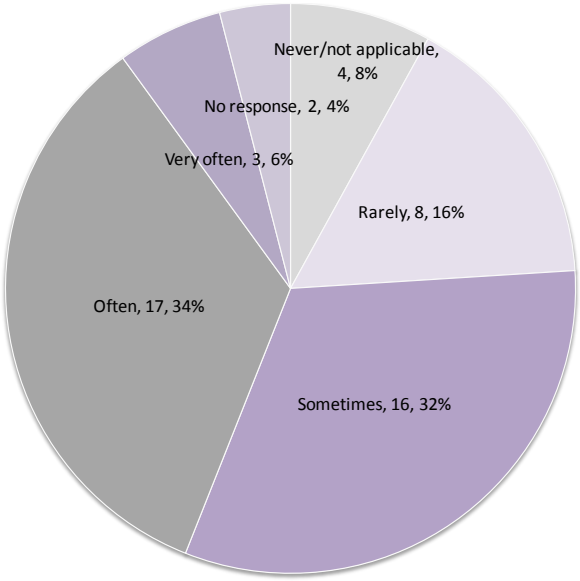


Table 3. Type of training provided by employers over the previous 12 months

Aspiring Creatives	
• Online tutorials, courses, and seminars	• Giving designers basic programming knowledge and programmers some knowledge of design
• On-the-job tutoring, training, coaching, mentoring, and advice from senior staff	• Training to create generalists instead of individual specialists
• One-on-one training	• Get Digital and lost C31?
• Flash training	• Seminar attendance
• Detailed induction, cultural awareness training, facilitation training and communication training	• In-house programming and database
• Final Cut Pro editing course	• Adobe suite
• On-the-job training - camera operation and crew, equipment training, reception training, and OH&S	• Verbal, online and external training courses
• AFTRS short courses	• Varies based on business requirements
	• Motion, After effects, Colour, and Final Cut Pro
All workers	
• Industry courses, seminars, presentations, conferences, and workshops	• Sales and marketing training
• Recognition of prior learning	• Internships
• Online tutorials/seminars	• Individual courses for employees
• On-the-job training	• Informal documented procedures and templates
• One-on-one training	• Get Digital and lost C31?
• Internal technical skills courses	• Visiting Channel 31 Melbourne website c31.org.au
• External admin courses	• Postgraduate and undergraduate education
• AIMIA conferences and workshops	• Professional development related to delivery of education
• Programming, software & project management courses	• On-the-job training in sales, photography and photo retouching
• Business systems and web management	• Skills specific courses
• Coaching and systems support	• General recruitment training
• Programming and computer science	• Speaker invitations
• Professional development opportunities as identified by each employee	• Outplacement training and business development training
• Formal editing course	• Post-production, digital special effects, animation and editing
• Leadership skills	• Varies across business units and different divisions
• Internal presentations	

Participation in communities of interest/networks, mentoring and internships

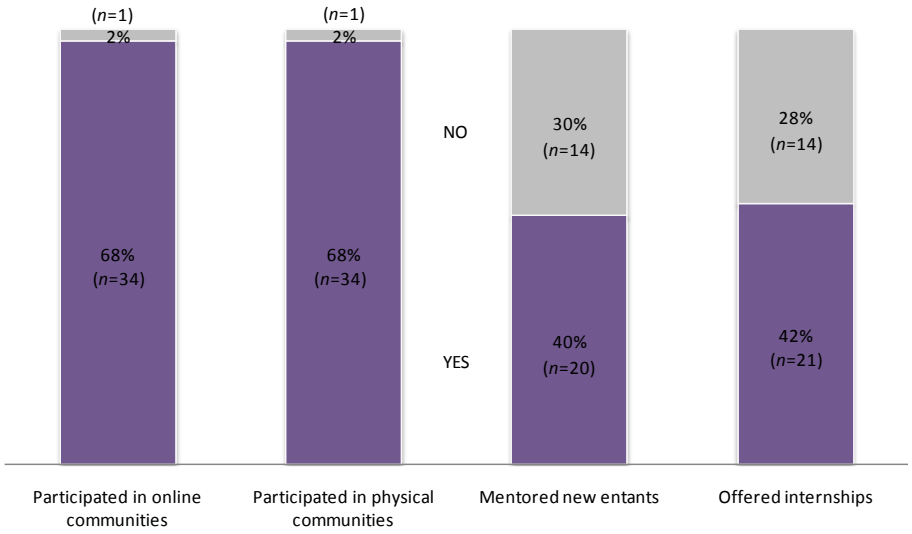
The data presented in Table 4 indicate that a typical employer:

- participated in online and physical communities of interest/networks over the previous 12 months.

Forty percent (40%) of employers had mentored aspiring creatives and 42% had offered internships over the previous 12 months.

Table 4. Participation in communities of interest/networks, mentoring and internships

Survey question	Results	Responses/ response rate
Q.42 Over the previous 12 months, has this organisation:		
Participated in **online** communities of interest/networks	No (*n*=1, 2%) **Yes (*n*=34, 68%)**	Responses: *n*=35/70% RR
Participated in **physical** communities of interest/networks	No (*n*=1, 2%) **Yes (*n*=34, 68%)**	Responses: *n*=35/70% RR
Mentored aspiring creatives	No (*n*=15, 30%) **Yes (*n*=20, 40%)**	Responses: *n*=35/70% RR
Offered internships	No (*n*=14, 28%) **Yes (*n*=21, 42%)**	Responses: *n*=35/70% RR



Section summary

This section addressed the first objective of this report: **Describe the characteristics and practices of employers**. Key findings are as follows:

- Employers who responded to the survey were typically small, established businesses operating within the Software and Digital Content industry sector/segment; and located in New South Wales, Victoria or Queensland.
- Employers were most likely to indicate employing graphic designers and programmers.
- Over 80% of employers indicated that aspiring creatives (i.e. recent graduates and/or people with less than two years industry experience) only accounted for between 0% and 20% of all workers.

- Over the previous 12 months, 56% of employers surveyed had recruited new workers, particularly graphic designers and programmers, with around half of the new workers sourced from interstate and overseas.
- Employers were most likely to indicate an intention to recruit programmers over the next 12 months.
- Employers were more attracted to 'creative talent and/or the necessary job skills' than qualifications when employing creative aspiring creatives.
- Employers preferred to use word of mouth, networks and websites to recruit new workers.
- Employers were most likely to indicate that it was 'difficult' to recruit aspiring creatives with the 'right' skills and attributes.
- Over the previous 12 months, employers had 'sometimes' or 'often' provided training in a range of areas to aspiring creatives and all workers.
- Over the previous 12 months, the majority of employers participated in communities of interest/ networks, 40% mentored aspiring creatives, and 42% offered internships to aspiring creatives.

Capabilities of aspiring creatives

This section of the report aims to address the second objective of this report: **Explore the views of employers and the views of aspiring creatives in relation to the capabilities of aspiring creatives.**

The project team used two measures to identify the **capability gaps** of aspiring creatives:

- The differences between 'importance' ratings of skills and attributes by employers and 'capability' ratings of skills and attributes by employers
- The differences between employers' views of the capabilities of aspiring creatives and aspiring creatives' views of their own capabilities

Employers' views of the capabilities of aspiring creatives

Figure 1 presents data on employers' views about the **importance** of skills and attributes to their workplace and their views about the **capabilities** of aspiring creatives. Overall, employers indicated that the capabilities of aspiring creatives for all 15 skills and attributes were below their expectations when compared to the level of importance they place on these skills and attributes to their workplaces.

Employers were most likely to indicate team work skills, communication skills, motivation, problem-solving skills, and adaptability were the most important skills and attributes to their workplaces; and business skills, career goals/planning skills, planning and organising skills, and personal presentation the least important to their workplaces.

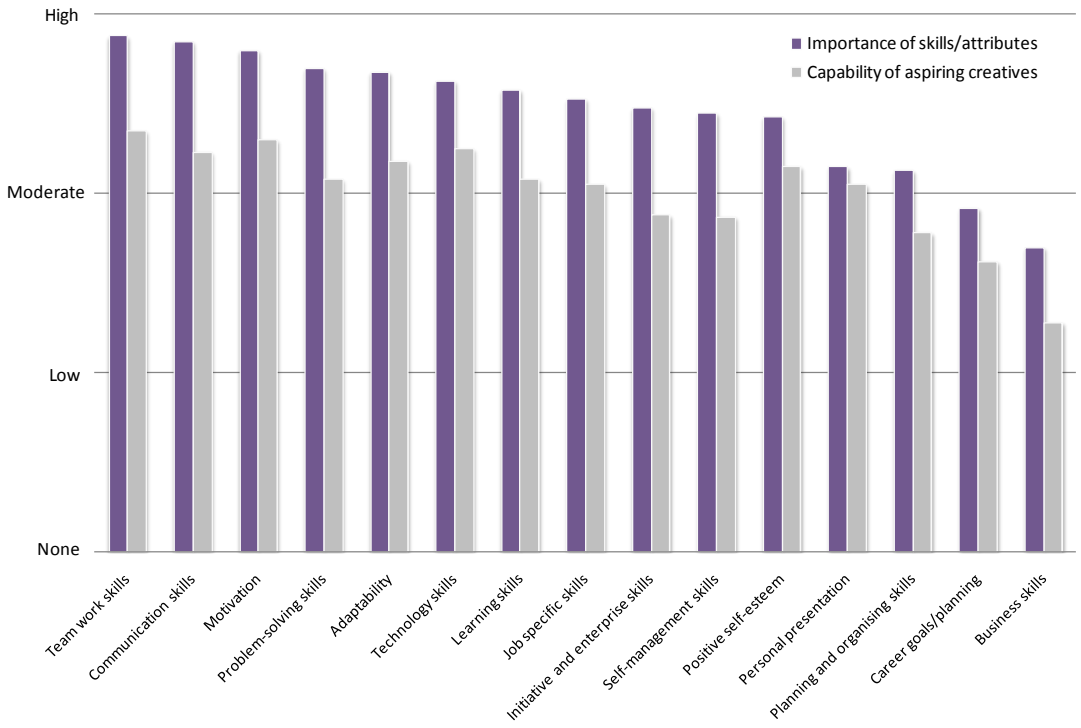


Figure 1. Employers' views of the importance of skills and attributes (mean rating) vs employers' views of the capabilities of aspiring creatives (mean rating)

Differences between mean 'importance' ratings and mean 'capability' ratings by employers show the extent to which aspiring creatives do not meet the expectations of employers. Areas with the **largest capability gaps** were problem-solving skills, communication skills, initiative & enterprise skills, self-management skills, and team work skills (Figure 2). The **smallest capability gap** was for the attribute of personal presentation.

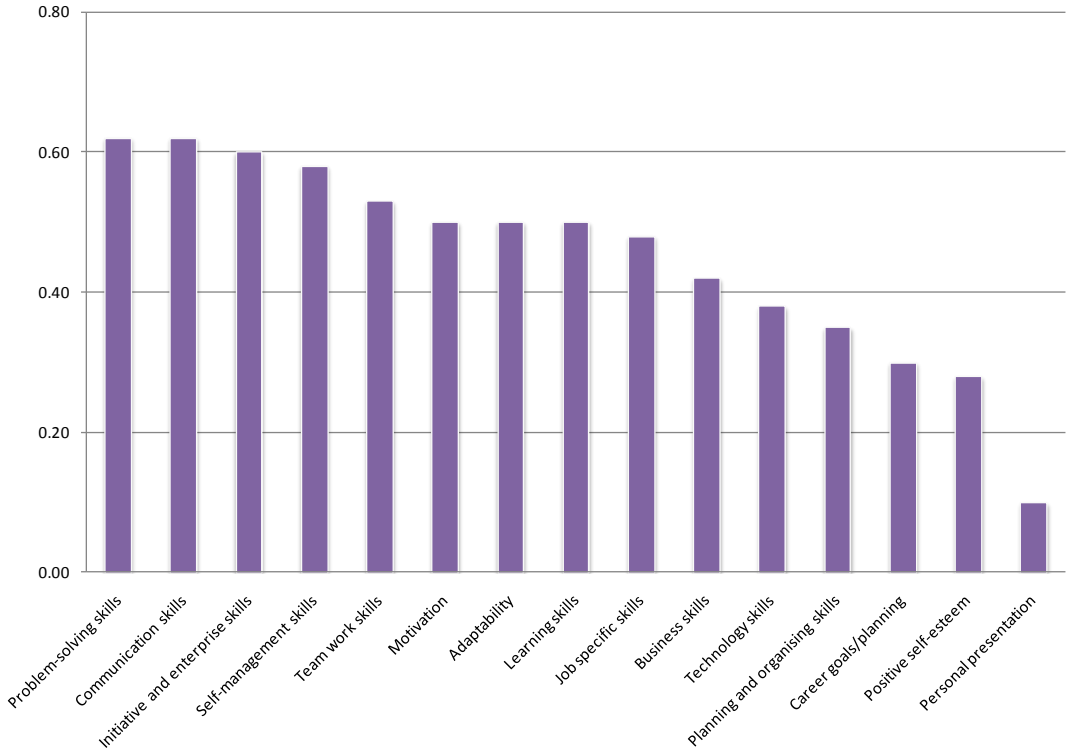
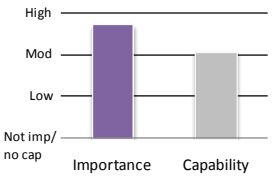
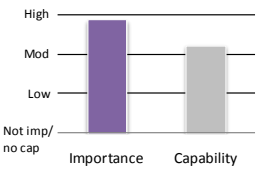
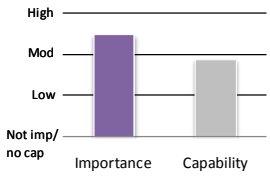
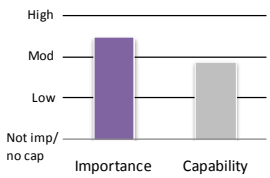
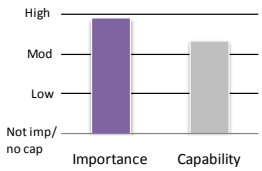
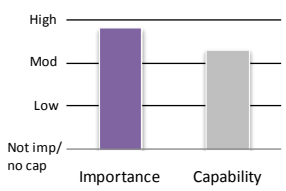
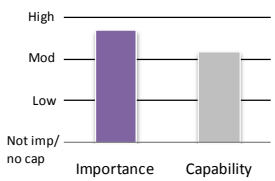
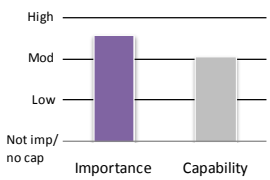
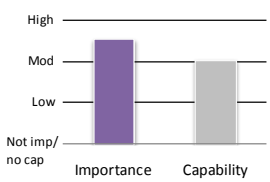


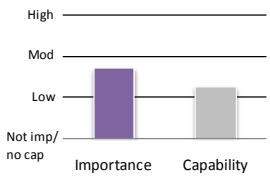
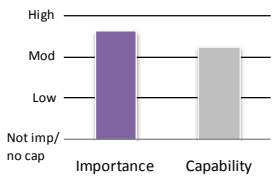
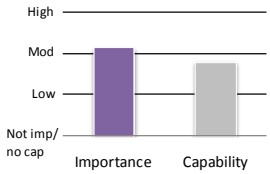
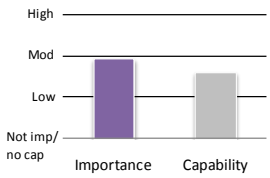
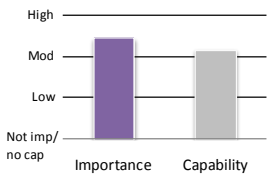
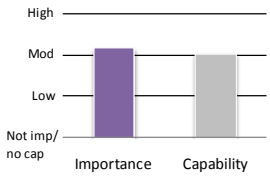
Figure 2. Capability gaps: Differences between employers' mean 'importance' ratings and employers' mean 'capability' ratings

Table 5 presents **all data** related to the **importance** of employability skills and attributes to employers and their views about the **capability** of aspiring creatives, with skills and attributes ranked from highest to lowest 'capability' gap. Overall, employers were most likely to rate the 'importance' of skills and attributes to their workplaces as 'high' and the 'capability' of aspiring creatives as 'moderate'. However, between 26% and 32% of employers indicated the 'capability' of aspiring creatives in the areas of initiative & enterprise skills, business skills, and career goals/planning was 'low'.

Table 5. Employers' views of the 'importance' of skills and attributes and the 'capabilities' of aspiring creatives

Skills and attributes	Results	Results	Responses/ response rate
Problem-solving skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=0, 0%) 3. Moderate (*n*=12, 24%) **4. High (*n*=28, 56%)**	*Capability* 1. None (*n*=2, 4%) 2. Low (*n*=6, 12%) **3. Moderate (*n*=19, 38%)** 4. High (*n*=13, 26%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.70 (*SD*=0.464) Capability: 3.08 (*SD*=0.829) *Gap between means:* 0.62 (mean importance less mean capability)
Communication skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=0, 0%) 3. Moderate (*n*=5, 10%) **4. High (*n*=35, 70%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=1, 2%) **3. Moderate (*n*=21, 42%)** 4. High (*n*=17, 34%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.85 (*SD*=0.362) Capability: 3.23 (*SD*=0.768) *Gap between means:* 0.62

Skills and attributes	Results	Results	Responses/ response rate
Initiative & enterprise skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=2, 4%) 3. Moderate (*n*=17, 34%) **4. High (*n*=21, 42%)**	*Capability* 1. None (*n*=1, 2%) **2. Low (*n*=14, 28%)** **3. Moderate (*n*=14, 28%)** 4. High (*n*=11, 22%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.48 (*SD*=0.599) Capability: 2.88 (*SD*=0.853) *Gap between means:* 0.60
Self-management skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=2, 4%) 3. Moderate (*n*=18, 36%) **4. High (*n*=20, 40%)**	*Capability* 1. None (*n*=2, 4%) 2. Low (*n*=9, 18%) **3. Moderate (*n*=21, 42%)** 4. High (*n*=8, 16%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.45 (*SD*=0.597) Capability: 2.87 (*SD*=0.791) *Gap between means:* 0.58
Team work skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=0, 0%) 3. Moderate (*n*=6, 12%) **4. High (*n*=34, 68%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=5, 10%) **3. Moderate (*n*=18, 36%)** 4. High (*n*=16, 32%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.88 (*SD*=0.335) Capability: 3.35 (*SD*=0.662) *Gap between means:* 0.53
Motivation 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=1, 2%) 3. Moderate (*n*=6, 12%) **4. High (*n*=33, 66%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=3, 6%) **3. Moderate (*n*=19, 38%)** 4. High (*n*=17, 34%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.8 (*SD*=0.464) Capability: 3.3 (*SD*=0.723) *Gap between means:* 0.50
Adaptability 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=0, 0%) 3. Moderate (*n*=13, 26%) **4. High (*n*=27, 54%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=7, 14%) **3. Moderate (*n*=16, 32%)** **4. High (*n*=16, 32%)**	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.68 (*SD*=0.474) Capability: 3.18 (*SD*=0.813) *Gap between means:* 0.50
Learning skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=1, 2%) 3. Moderate (*n*=15, 30%) **4. High (*n*=24, 48%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=5, 10%) **3. Moderate (*n*=24, 48%)** 4. High (*n*=10, 20%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.58 (*SD*=0.549) Capability: 3.08 (*SD*=0.694) *Gap between means:* 0.50
Job-specific skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=2, 4%) 3. Moderate (*n*=15, 30%) **4. High (*n*=23, 46%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=8, 16%) **3. Moderate (*n*=19, 38%)** 4. High (*n*=12, 24%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.53 (*SD*=0.599) Capability: 3.05 (*SD*=0.783) *Gap between means:* 0.48

Skills and attributes	Results	Results	Responses/ response rate
Business skills 	*Importance* 1. None (*n*=4, 8%) **2. Low (*n*=11, 22%)** 3. Moderate (*n*=18, 36%) 4. High (*n*=7, 14%)	*Capability* 1. None (*n*=8, 16%) **2. Low (*n*=16, 32%)** 3. Moderate (*n*=13, 26%) 4. High (*n*=3, 6%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 2.70 (*SD*=0.883) Capability: 2.28 (*SD*=0.877) *Gap between means:* 0.42
Technology skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=0, 0%) 3. Moderate (*n*=15, 30%) **4. High (*n*=25, 50%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=4, 8%) **3. Moderate (*n*=19, 38%)** 4. High (*n*=16, 32%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.63 (*SD*=0.490) Capability: 3.25 (*SD*=0.742) *Gap between means:* 0.38
Planning and organising skills 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=6, 12%) **3. Moderate (*n*=23, 46%)** 4. High (*n*=11, 22%)	*Capability* 1. None (*n*=2, 4%) 2. Low (*n*=10, 20%) **3. Moderate (*n*=23, 46%)** 4. High (*n*=5, 10%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.12 (*SD*=0.648) Capability: 2.77 (*SD*=0.733) *Gap between means:* 0.35
Career goals/planning skills 	*Importance* 1. None (*n*=1, 2%) 2. Low (*n*=7, 14%) **3. Moderate (*n*=26, 52%)** 4. High (*n*=6, 12%)	*Capability* 1. None (*n*=3, 6%) 2. Low (*n*=13, 26%) **3. Moderate (*n*=20, 40%)** 4. High (*n*=4, 8%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 2.92 (*SD*=0.656) Capability: 2.62 (*SD*=0.774) *Gap between means:* 0.30
Positive self-esteem 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=3, 6%) 3. Moderate (*n*=17, 34%) **4. High (*n*=20, 40%)**	*Capability* 1. None (*n*=1, 2%) 2. Low (*n*=5, 10%) **3. Moderate (*n*=21, 42%)** 4. High (*n*=13, 26%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.43 (*SD*=0.636) Capability: 3.15 (*SD*=0.736) *Gap between means:* 0.28
Personal presentation 	*Importance* 1. None (*n*=0, 0%) 2. Low (*n*=6, 12%) **3. Moderate (*n*=22, 44%)** 4. High (*n*=12, 24%)	*Capability* 1. None (*n*=2, 4%) 2. Low (*n*=6, 12%) **3. Moderate (*n*=20, 40%)** 4. High (*n*=12, 24%)	Responses: *n*=40/80% RR *Mean (1.None to 4.High):* Importance: 3.15 (*SD*=0.662) Capability: 3.05 (*SD*=0.815) *Gap between means:* 0.10

Employers' vs aspiring creatives' views of the capabilities of aspiring creatives

The project team aligned most of the skills and attributes in the employer survey to the skills and attributes in the aspiring creatives survey. For those remaining skills and attributes, the project team:

- used 'entrepreneurial attitude' in the aspiring creatives survey as a proxy for 'initiative & enterprise skills' in the employer survey
- used 'time management' in the aspiring creatives survey as a proxy for 'planning and organising skills' in the employer survey
- combined results for six 'technology skills' questions from the aspiring creatives survey
- combined results for 11 'business skills' questions from the aspiring creatives survey.

Because the majority of response choices in the aspiring creatives survey were different to those in the employer survey, the project team collapsed choices in order to make the best possible comparisons between employers' views and aspiring creatives' views. As an example, Table 6 shows how the project team collapsed response choices for 'team work skills'.

Table 6. Aligning response choices in the employer survey to response choices in the aspiring creative survey: Team work skills

Aspiring Creatives survey	Employer survey	This report
Expert	High	**High**
Very good		
Getting good	Moderate	**Moderate**
Not too bad		
Need practice	Low	**Low/none**
	None	

Figure 3 on the following page compares employers' views of the capabilities of aspiring creatives and aspiring creatives' views of their own capabilities, with skills and attributes ranked from highest to lowest 'capability' gap. When compared to the views of employers, aspiring creatives:

- **over-rated** their capabilities for 13 of the 15 skills and attributes as well as their software skills
- slightly **under-rated their capabilities in the areas of business skills, positive self-esteem and motivation**.

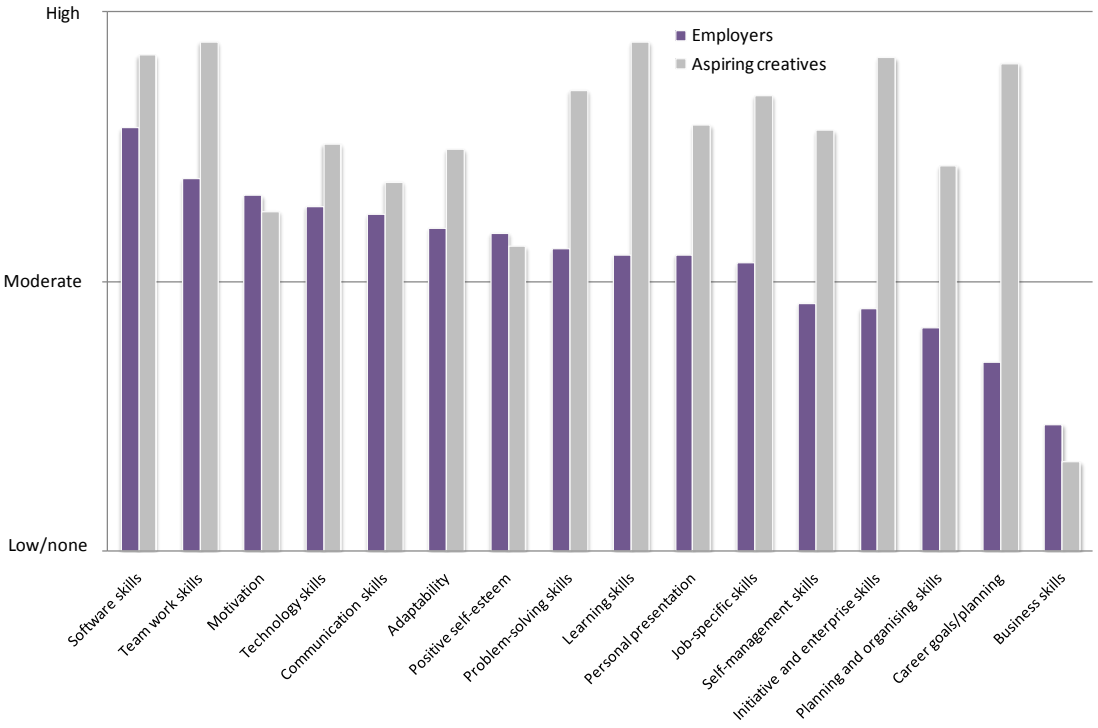


Figure 3. Employers' views of the capabilities of aspiring creatives (mean rating) vs aspiring creatives' views of their own capabilities (mean rating)

Figure 4 shows the differences between employers' views of the capability of aspiring creatives and aspiring creatives' views of their own capabilities. The skills and attributes with the **largest capability gaps** were learning skills, careers goals/planning skills, and self-management skills. The skills and attributes with the **smallest capability gaps** were business skills, positive self-esteem, and motivation.

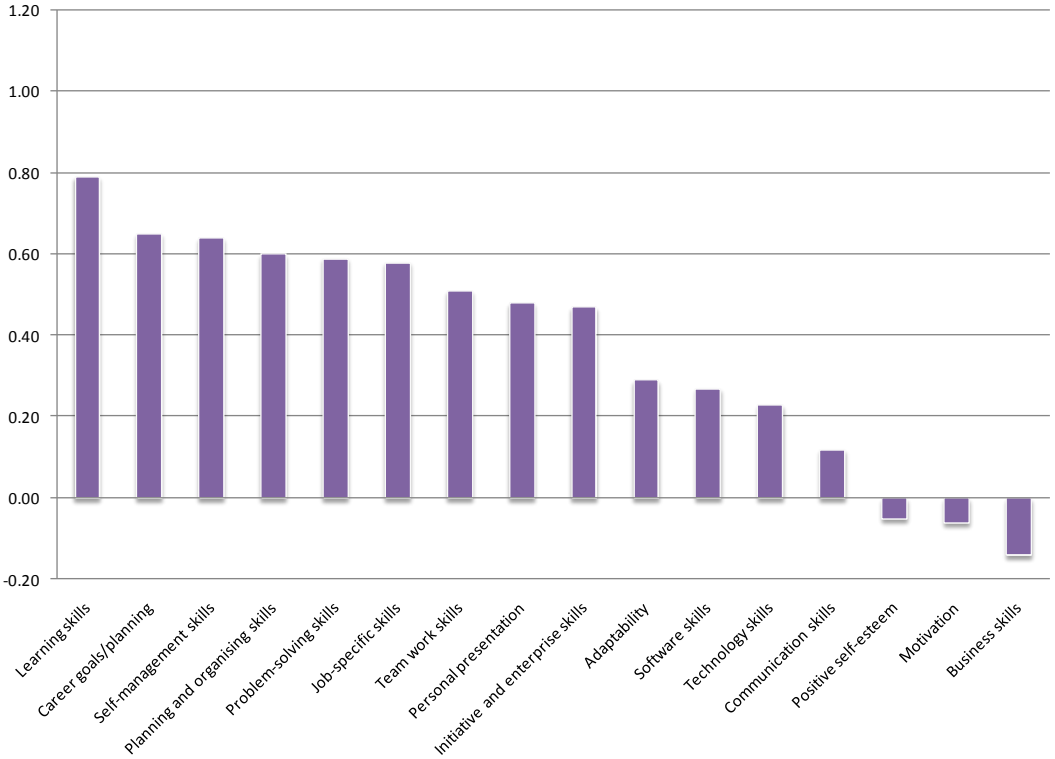
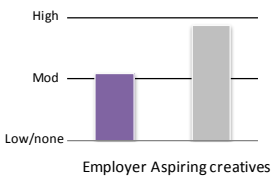
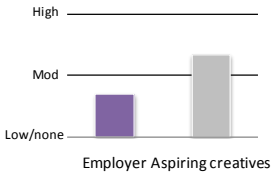
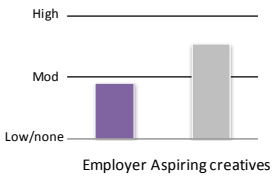
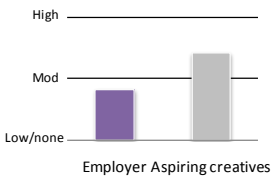
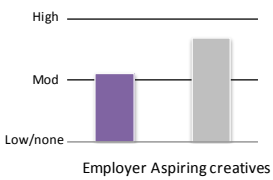
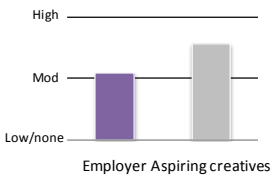
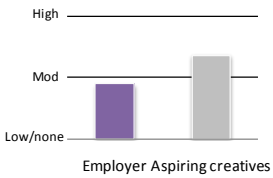
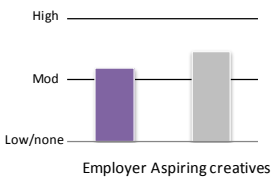
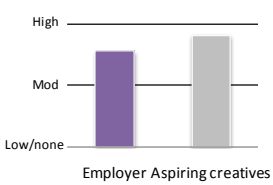


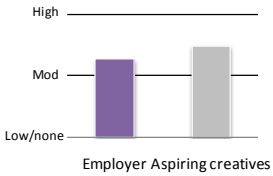
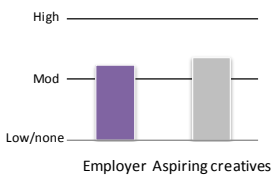
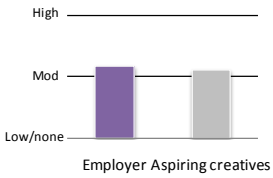
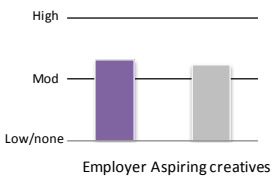
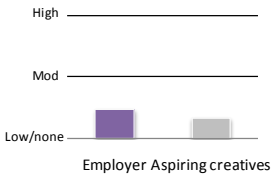
Figure 4. Capability gaps: Differences between employers' mean 'capability' ratings and aspiring creatives' mean 'capability' ratings

Table 7 presents **all data** related to employers' views of the capabilities of aspiring creatives and aspiring creatives' views of their own **capabilities**, with skills and attributes ranked from highest to lowest 'capability' gap. Overall, employers were most likely to rate the capabilities of aspiring creatives as 'moderate', whereas aspiring creatives were most likely to rate their own capabilities as 'moderate' to 'high'.

Table 7. Employers' views vs aspiring creatives' views of the capabilities of aspiring creatives

Skills and attributes	Results	Results	Responses/ response rate
Learning skills  	*Employers* 1. Low/none (*n*=6, 12%) **2. Moderate (*n*=24, 48%)** 3. High (*n*=10, 20%)	*Aspiring creatives* 1. Low/none (*n*=1, 0.2%) 2. Moderate (*n*=35, 6.9%) **3. High (*n*=298, 58.8%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.10 (*SD*=0.632) *Aspiring creatives:* Responses: *n*=334/ 65.9% RR Mean (*1.Low/none* to 3.High): 2.89 (*SD*=0.324) *Gap between means:* 0.79 (mean capability by aspiring creatives less mean capability by employers)
Career goals/ planning skills  	*Employers* 1. Low/none (*n*=16, 32%) **2. Moderate (*n*=20, 40%)** 3. High (*n*=4, 8%)	*Aspiring creatives* 1. Low/none (*n*=15, 3%) **2. Moderate (*n*=188, 37.1%)** 3. High (*n*=131, 25.8%)	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 1.7 (*SD*=0.648) *Aspiring creatives:* Responses: *n*=334/65.9% RR Mean (*1.Low/none* to 3.High): 2.35 (*SD*=0.563) *Gap between means:* 0.65
Self-management skills  	*Employers* 1. Low/none (*n*=11, 22%) **2. Moderate (*n*=21, 42%)** 3. High (*n*=8, 16%)	*Aspiring creatives* 1. Low/none (*n*=12, 2.4%) 2. Moderate (*n*=136, 26.8%) **3. High (*n*=213, 42%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 1.92 (*SD*=0.694) *Aspiring creatives:* Responses: *n*= 361/71.2% RR Mean (*1.Low/none* to 3.High): 2.56 (*SD*=0.560) *Gap between means:* 0.64
Planning and organising skills  	*Employers* 1. Low/none (*n*=12, 24%) **2. Moderate (*n*=23, 46%)** 3. High (*n*=5, 10%)	*Aspiring creatives* 1. Low/none (*n*=19, 3.7%) 2. Moderate (*n*=169, 33.3%) **3. High (*n*=173, 34.1%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 1.83 (*SD*=0.636) *Aspiring creatives:* Responses: *n*= 361/71.2% RR Mean (*1.Low/none* to 3.High): 2.43 (*SD*=0.592) *Gap between means:* 0.60
Problem-solving skills  	*Employers* 1. Low/none (*n*=8, 16%) **2. Moderate (*n*=19, 38%)** 3. High (*n*=13, 26%)	*Aspiring creatives* 1. Low/none (*n*=1, 2%) 2. Moderate (*n*=101, 19.9%) **3. High (*n*=259, 51.1%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.12 (*SD*=0.723) *Aspiring creatives:* Responses: *n*= 361/71.2% RR Mean (*1.Low/none* to 3.High): 2.71 (*SD*=0.458) *Gap between means:* 0.59

Skills and attributes	Results	Results	Responses/ response rate
Job-specific skills 	*Employers* 1. Low/none (*n*=9, 18%) **2. Moderate (*n*=19, 38%)** 3. High (*n*=12, 24%)	*Aspiring creatives* 1. Low/none (*n*=7, 14%) 2. Moderate (*n*=131, 25.8%) **3. High (*n*=280, 55.2%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.07 (*SD*=0.730) *Aspiring creatives:* Responses: *n*=418/82.4% RR Mean (*1.Low/none* to 3.High): 2.65 (*SD*=0.511) *Gap between means:* 0.58
Team work skills 	*Employers* 1. Low/none (*n*=2, 4%) **2. Moderate (*n*=21, 42%)** 3. High (*n*=17, 34%)	*Aspiring creatives* 1. Low/none (*n*=2, 0.4%) 2. Moderate (*n*=37, 7.3%) **3. High (*n*=322, 63.5%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.38 (*SD*=0.586) *Aspiring creatives:* Responses: *n*=361/71.2% RR Mean (*1.Low/none* to 3.High): 2.89 (*SD*=0.335) *Gap between means:* 0.51
Personal presentation 	*Employers* 1. Low/none (*n*=8, 16%) **2. Moderate (*n*=20, 40%)** 3. High (*n*=12, 24%)	*Aspiring creatives* 1. Low/none (*n*=7, 1.4%) 2. Moderate (*n*=114, 22.5%) **3. High (*n*=182, 35.9%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.10 (*SD*=0.709) *Aspiring creatives:* Responses: *n*=303/59.7% RR Mean (*1.Low/none* to 3.High): 2.58 (*SD*=0.540) *Gap between means:* 0.48
Initiative & enterprise skills 	*Employers* **1. Low/none (*n*=15, 30%)** **2. Moderate (*n*=14, 28%)** 3. High (*n*=11, 22%)	*Aspiring creatives* 1. Low/none (*n*=16, 3.2%) **2. Moderate (*n*=180, 35.5%)** 3. High (*n*=138, 27.2%)	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 1.9 (*SD*=0.810) *Aspiring creatives:* Responses: *n*=334/ 65.9% RR Mean (*1.Low/none* to 3.High): 2.37 (*SD*=0.537) *Gap between means:* 0.47
Adaptability 	*Employers* 1. Low/none (*n*=8, 16%) **2. Moderate (*n*=16, 32%)** **3. High (*n*=16, 32%)**	*Aspiring creatives* 1. Low/none (*n*=5, 1%) 2. Moderate (*n*=145, 28.6%) **3. High (*n*=153, 30.2%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.2 (*SD*=0.758) *Aspiring creatives:* Responses: *n*=303/59.7% RR Mean (*1.Low/none* to 3.High): 2.49 (*SD*=0.533) *Gap between means:* 0.29
Software skills 	*Employers* 1. Low/none (*n*=2, 4%) **2. Moderate (*n*=12, 24%)** 3. High (*n*=23, 46%) Note: Photoshop, Microsoft Office and Flash are the main software programmes employers expect aspiring creatives to use.	*Aspiring creatives* 1. Low/none (*n*=2, 0.4%) **2. Moderate (*n*=55, 10.8%)** 3. High (*n*=314, 61.9%)	*Employers:* Responses: *n*=37/74% RR Mean (*1.Low/none* to 3.High): 2.57 (*SD*=0.603) *Aspiring creatives:* Responses: *n*= 371/73.2% RR Mean (*1.Low/none* to 3.High): 2.84 (*SD*=0.381) *Gap between means:* 0.27

Skills and attributes	Results	Results	Responses/ response rate
Technology skills 	*Employers* 1. Low/none (*n*=5, 10%) **2. Moderate (*n*=19, 38%)** 3. High (*n*=16, 32%)	*Aspiring creatives* 1. Low/none (*n*=29, 5.7%) 2. Moderate (*n*=141, 27.8%) **3. High (*n*=169, 33.3%)**	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.28 (*SD*=0.679) *Aspiring creatives:* Responses: *n*=339/66.9% RR Mean (*1.Low/none* to 3.High): 2.51 (*SD*=0.655) *Gap between means:* 0.23
Communication skills 	*Employers* 1. Low/none (*n*=6, 12%) **2. Moderate (*n*=18, 36%)** 3. High (*n*=16, 32%)	*Aspiring creatives* 1. Low/none (*n*=9, 1.8%) **2. Moderate (*n*=174, 34.3%)** 3. High (*n*=120, 23.7%)	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.25 (*SD*=0.707) *Aspiring creatives:* Responses: *n*= 303/59.7% RR Mean (*1.Low/none* to 3.High): 2.37 (*SD*=0.541) *Gap between means:* 0.12
Positive self-esteem 	*Employers* 1. Low/none (*n*=6, 12%) **2. Moderate (*n*=21, 42%)** 3. High (*n*=13, 26%)	*Aspiring creatives* 1. Low/none (*n*=48, 9.5%) **2. Moderate (*n*=167, 32.9%)** 3. High (*n*=88, 17.4%)	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 2.18 (*SD*=0.675) *Aspiring creatives:* Responses: *n*=303/59.7% RR Mean (*1.Low/none* to 3.High): 2.13 (*SD*=0.658) *Gap between means:* -0.05
Motivation 	*Employers* 1. Low/none (*n*=4, 8%) **2. Moderate (*n*=19, 38%)** 3. High (*n*=17, 34%)	*Aspiring creatives* 1. Low/none (*n*=26, 5.1%) **2. Moderate (*n*=173, 34.1%)** 3. High (*n*=104, 20.5%)	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): *2.32* (*SD*=0.656) *Aspiring creatives:* Responses: *n*= 303/59.7% RR Mean (*1.Low/none* to 3.High): 2.26 (*SD*=0.603) *Gap between means:* -0.06
Business skills 	*Employers* **1. Low/none (*n*=24, 48%)** 2. Moderate (*n*=13, 26%) 3. High (*n*=3, 6%)	*Aspiring creatives* 1. Low (*n*=149, 29.4%) **2. Moderate (*n*=133, 26.1%)** 3. High (*n*=18, 3.6%)	*Employers:* Responses: *n*=40/80% RR Mean (*1.Low/none* to 3.High): 1.47 (*SD*=0.640) *Aspiring creatives:* Responses: *n*=300/59.2% RR Mean (*1.Low/none* to 3.High): 1.33 (*SD*=n.a.) *Gap between means:* -0.14

Section summary

This section sought to address the second objective of this report: **Explore the views of employers and the views of aspiring creatives in relation to the capabilities of aspiring creatives.** Key findings are as follows:

- Employers ranked team work skills, communication skills, motivation, problem-solving skills, and adaptability as the most important skills and attributes to their workplaces.
- Employers were most likely to indicate the capabilities of aspiring creatives for all 15 skills and attributes included in the employer survey were below their expectations when compared to the level of importance they placed on these skills and attributes to their workplaces.
- When compared to the views of employers, aspiring creatives over-rated their capabilities for 13 of the 15 skills and attributes as well as their software skills; and slightly under-rated their capabilities in the areas of business skills, positive self-esteem, and motivation.
- Overall, employers were most likely to rate the importance of skills and attributes to their workplaces as 'high' and the capabilities of aspiring creatives as 'moderate', whereas aspiring creatives were most likely to rate their capabilities as 'moderate' to 'high'.

The two measures of capability gaps identified the largest capability gaps of aspiring creatives:

- The differences between the mean 'importance' ratings of employers and mean 'capability' ratings of employers indicated aspiring creatives have the largest capability gaps in the areas of problem-solving skills, communication skills, initiative & enterprise skills, self-management skills, and team work skills.
- The differences between employers' views of the capabilities of aspiring creatives and aspiring creatives' views of their own capabilities indicated aspiring creatives have the largest capability gaps in the areas of learning skills, careers goals/planning skills, and self-management skills.

Factors influencing employers' views of the capabilities of aspiring creatives

This section of the report aims to address the third objective of this report: **Identify the factors that influence employers' views of the capabilities of aspiring creatives.** Achieving this objective allowed the project team to identify factors that enhance or inhibit the ability of aspiring creatives to find work in their preferred occupations in Australia's Creative Digital Industries. The project team recommends that readers treat findings in this section with caution as the small sample size restricted the use of more rigorous data analysis procedures that indicate significance levels.

Given the ongoing concerns about skills gaps in the Creative Digital Industries in Australia and elsewhere, and the insufficient supply of industry-ready graduates with the 'right' skills sets, the project team focused on identifying the factors that influence employers' views of the 'skills' of aspiring creatives as opposed to their views of the 'attributes' of aspiring creatives.

The project team selected skills:

- that employers regard as particularly important to their workplace;
- where there were significant differences between employers' views of the importance of skills to their workplaces and their views of the skills of aspiring creatives; and/or
- where there were significant differences between employers' views of the skills of aspiring creatives and aspiring creatives' views of their own skills.

The five (5) skills selected met some or all of these criteria: **Team work skills**, **communication skills**, **problem-solving skills**, **initiative & enterprise skills**, and **learning skills**. The project team also selected **job-specific skills** in response to concerns that aspiring creatives were not adequately equipped with the specialist skills necessary to work productively in the occupations for which they were trained for.

The project team used descriptive analysis to identify factors that scored a 0.20 difference either side of the overall mean for each factor group. For example, the overall mean capability for team work skills for the 'industry sector/segment' factor group was 3.33 out of 5 (see Table 8). This overall mean compares to a mean of 3.60 for the Software and Digital Content sector/segment (indicating employers in this sector/segment believe aspiring creatives have *higher* team work skills) and a mean of 3.11 for the Architecture, Design and Visual Arts sector (indicating employers in this sector/segment believe aspiring creatives have *lower* team work skills).

The project team placed the factors into the following groups:

- Characteristics of employers - Industry sector/segment, organisation type, location, years operating, number of workers, occupations, and proportion of workers who are aspiring creatives
- Recruitment and training practices – Minimum qualifications/experience when employing creative graduates and technical graduates, recruitment locations (interstate/overseas), ease/difficulty in finding the 'right' graduates, and frequency of training
- Participation in communities of interest/networks, mentoring, and internships.

The above analysis allowed the project team to identify *enabling* factors that contribute to employers' views that aspiring creatives have *higher* capabilities in particular skills areas; and *inhibiting* factors that contribute to employers' views that aspiring creatives have *lower* capabilities in particular skills areas. The project team was then able to identify enabling and inhibiting factors common to most of the skills areas.

Employer characteristics

- Employers in the **Software and Digital Content** sector/segment were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular problem-solving skills, team work skills, and job-specific skills (Table 8).
- Employers from the **Architecture, Design and Visual Arts** sector were most likely to indicate *lower* levels of capability of aspiring creatives in most skill areas, in particular initiative & enterprise skills, job-specific skills, learning skills, and team work skills (Table 8).

Table 8. Factors influencing employers' views by industry sector/segment

Industry sector/segment*	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Software & Digital Content	3.30	.675	10
Architecture, Design & Visual Arts	3.11	1.054	9
Advertising & Marketing	3.20	.775	15
All sectors/ segments	3.21	.767	39
Team work skills			
Software & Digital Content	3.60	.516	10
Architecture, Design & Visual Arts	3.11	.928	9
Advertising & Marketing	3.33	.617	15
All sectors/ segments	3.33	.662	39
Problem-solving skills			
Software & Digital Content	3.90	.316	10
Architecture, Design & Visual Arts	3.67	.500	9
Advertising & Marketing	3.67	.488	15
All sectors/ segments	3.69	.468	39
Initiative & enterprise skills			
Software & Digital Content	3.00	.816	10
Architecture, Design & Visual Arts	2.56	.882	9
Advertising & Marketing	2.87	.834	15
All sectors/ segments	2.85	.844	39
Learning skills			
Software & Digital Content	3.10	.568	10
Architecture, Design & Visual Arts	2.67	.866	9
Advertising & Marketing	3.13	.640	15
All sectors/ segments	3.05	.686	39
Job-specific skills			
Software & Digital Content	3.50	.527	10
Architecture, Design & Visual Arts	2.67	.866	9
Advertising & Marketing	2.93	.766	15
All sectors/ segments	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Sample sizes for Music and Performing Arts, and Publishing too small ($n \leq 5$)

- Employers from the **Government sector** were most likely to indicate that aspiring creatives have *higher* learning skills (Table 9).

Table 9. Factors influencing employers' views by organisation type

Organisation type*	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Business	3.29	.767	29
Government	3.33	.516	6
All organisational types	3.21	.767	39
Team work skills			
Business	3.45	.572	29
Government	3.17	.408	6
All organisational types	3.33	.662	39
Problem-solving skills			
Business	3.10	.772	29
Government	3.17	.753	6
All organisational types	3.05	.826	39
Initiative & enterprise skills			
Business	2.86	.743	29
Government	3.00	1.095	6
All organisational types	2.85	.844	39
Learning skills			
Business	3.03	.566	29
Government	3.50	.548	6
All organisational types	3.05	.686	39
Job-specific skills			
Business	3.14	.693	29
Government	3.00	.632	6
All organisational types	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Sample sizes for non-profit organisations and self-employed too small ($n \leq 5$)

- Employers from **New South Wales** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular problem-solving skills and job-specific skills (Table 10).
- Employers from **Victoria** were most likely to indicate *lower* levels of capability of aspiring creatives in most skills area, in particular problem-solving skills (Table 10).
- Employers from **Queensland** were most likely to indicate that aspiring creatives have *lower* job-specific skills (Table 10).

Table 10. Factors influencing employers' views by location

State/territory*	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
New South Wales	3.21	.699	14
Victoria	3.23	.725	13
Queensland	3.30	.949	10
All States/territories	3.21	.767	39
Team work skills			
New South Wales	3.43	.514	14
Victoria	3.38	.506	13
Queensland	3.30	.949	10
All States/territories	3.33	.662	39
Problem-solving skills			
New South Wales	3.36	.633	14
Victoria	2.85	.689	13
Queensland	3.00	.943	10
All States/territories	3.05	.826	39
Initiative & enterprise skills			
New South Wales	3.00	.877	14
Victoria	2.77	.832	13
Queensland	2.80	.919	10
All States/territories	2.85	.844	39
Learning skills			
New South Wales	3.14	.535	14
Victoria	3.00	.707	13
Queensland	3.10	.876	10
All States/territories	3.05	.686	39
Job-specific skills			
New South Wales	3.36	.745	14
Victoria	2.85	.689	13
Queensland	2.80	.919	10
All States/territories	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Sample sizes for South Australia and Tasmania too small ($n \leq 5$). No survey responses from Western Australia, ACT, and Northern Territory.

- Employers operating for **between 6 and 10 years** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular team work skills, communication skills, problem-solving skills, and job-specific skills (Table 11).
- Employers operating for **less than 5 years** were most likely to indicate *lower* levels of capability of aspiring creatives in all skills areas (Table 11).

Table 11. Factors influencing employers' views by number of years operating

Years operating	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
< 5 years*	2.83	.835	12
6-10 years	3.50	.707	10
Over 10 years	3.25	.683	16
All years operating	3.18	.766	38
Team work skills			
< 5 years	3.08	.900	12
6-10 years	3.60	.516	10
Over 10 years	3.38	.500	16
All years operating	3.34	.669	38
Problem-solving skills			
< 5 years	2.67	1.073	12
6-10 years	3.40	.516	10
Over 10 years	3.13	.719	16
All years operating	3.05	.837	38
Initiative & enterprise skills			
< 5 years	2.50	.798	12
6-10 years	3.00	.816	10
Over 10 years	3.00	.894	16
All years operating	2.84	.855	38
Learning skills			
< 5 years	2.75	.754	12
6-10 years	3.20	.632	10
Over 10 years	3.25	.577	16
All years operating	3.08	.673	38
Job-specific skills			
< 5 years	2.83	.937	12
6-10 years	3.30	.675	10
Over 10 years	2.94	.680	16
All years operating	3.00	.771	38

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Responses for 'Less than 2 years' and '2-5 years' combined

- Large employers with **over 50 workers** were most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas, in particular problem-solving skills, learning skills, and initiative & enterprise skills (Table 12).
- Small employers with **less than 10 workers** were most likely to indicate *lower* level of capability of aspiring creatives in all skills areas, in particular initiative & enterprise skills, and learning skills (Table 12).

Table 12. Factors influencing employers' views by number of workers employed

Years operating	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Less than 10 workers	3.05	.848	19
11-50 workers	3.30	.675	10
Over 50 workers*	3.40	.699	10
All workers	3.21	.767	39
Team work skills			
Less than 10 workers	3.26	.806	19
11-50 workers	3.40	.516	10
Over 50 workers	3.40	.516	10
All workers	3.33	.662	39
Problem-solving skills			
Less than 10 workers	2.89	.937	19
11-50 workers	3.00	.816	10
Over 50 workers	3.40	.516	10
All workers	3.05	.826	39
Initiative & enterprise skills			
Less than 10 workers	2.63	.761	19
11-50 workers	2.80	.789	10
Over 50 workers	3.30	.949	10
All workers	2.85	.844	39
Learning skills			
Less than 10 workers	2.84	.688	19
11-50 workers	3.10	.568	10
Over 50 workers	3.40	.699	10
All workers	3.05	.686	39
Job-specific skills			
Less than 10 workers	2.95	.780	19
11-50 workers	3.00	.816	10
Over 50 workers	3.20	.789	10
All workers	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Responses for '51-100 workers' and 'over 100 workers' combined

- Employers who employed **visual artists** were most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas (Table 13).
- Employers who employed **photographers** were most likely to indicate *lower* levels of capability of aspiring creatives in most skills areas, in particular problem-solving skills, communication skills, and team work skills (Table 13).

Table 13. Factors influencing employers' views by occupation

Occupations*	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Graphic Designers	3.31	.679	26
Programmers	3.23	.685	22
Animators	3.80	.422	10
Writers	3.50	.535	8
Photographers	3.00	1.195	8
Visual Artists	3.83	.408	6
Other	3.10	.738	10
All occupations	3.21	.767	39
Team work skills			
Graphic Designers	3.80	.422	10
Programmers	3.36	.581	22
Animators	3.60	.561	10
Writers	3.38	.518	8
Photographers	3.00	1.069	8
Visual Artists	3.50	.548	6
Other	3.20	.632	10
All occupations	3.33	.662	39
Problem-solving skills			
Graphic Designers	3.19	.749	26
Programmers	3.14	.834	22
Animators	3.50	.527	10
Writers	3.12	.991	8
Photographers	2.75	1.389	8
Visual Artists	3.67	.516	6
Other	2.90	.994	10
All occupations	3.05	.826	39
Initiative & enterprise skills			
Graphic Designers	2.96	.774	26
Programmers	3.00	.816	22
Animators	3.20	.789	10
Writers	3.00	.926	8
Photographers	2.88	1.246	8
Visual Artists	3.50	.837	6
Other	2.80	.919	10
All occupations	2.85	.844	39

Occupations*	Mean	Standard deviation *(SD)*	Sample size (*n*)
Learning skills			
Graphic Designers	3.12	.653	26
Programmers	3.23	.685	22
Animators	3.30	.675	10
Writers	3.38	.518	8
Photographers	3.12	1.126	8
Visual Artists	3.50	.837	6
Other	3.10	.568	10
All occupations	3.05	.686	39
Job-specific skills			
Graphic Designers	3.00	.748	26
Programmers	3.14	.640	22
Animators	3.40	.516	10
Writers	3.00	.756	8
Photographers	2.88	1.126	8
Visual Artists	3.67	.516	6
Other	3.00	.816	10
All occupations	3.03	.778	39

Higher level of capability (0.20 above mean) Lower levels of capability (0.20 below mean)

* Sample size for Musicians/Sound Technicians too small (*n*≤5).

- Employers who indicated **aspiring creatives account for between 11% and 20% of all workers** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular communication skills, problem solving, learning skills, and initiative & enterprise skills (Table 14).
- Employers who did **not employ aspiring creatives were** most likely to indicate *lower* levels of capability of aspiring creatives in most skills areas, in particular initiative & enterprise skills, learning skills, and team work skills (Table 14).

Table 14. Factors influencing employers' views by proportion of workers who are aspiring creatives

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
None (0%)	3.11	.928	9
1-10%	3.19	.655	16
11-20%	3.44	.726	9
All aspiring creatives as a proportion of workers	3.21	.767	39
Team work skills			
None (0%)	3.11	.928	9
1-10%	3.38	.500	16
11-20%	3.44	.726	9
All aspiring creatives as a proportion of workers	3.33	.662	39

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Problem-solving skills			
None (0%)	2.89	1.054	9
1-10%	3.06	.574	16
11-20%	3.33	1.000	9
All aspiring creatives as a proportion of workers	3.05	.826	39
Initiative & enterprise skills			
None (0%)	2.56	.882	9
1-10%	2.88	.885	16
11-20%	3.11	.782	9
All aspiring creatives as a proportion of workers	2.85	.844	39
Learning skills			
None (0%)	3.19	.544	16
1-10%	2.78	.833	9
11-20%	3.11	.601	9
All aspiring creatives as a proportion of workers	3.05	.686	39
Job-specific skills			
None (0%)	2.89	1.054	9
1-10%	3.00	.730	16
11-20%	3.33	.500	9
All aspiring creatives as a proportion of workers	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Sample sizes for groups above 20% (e.g. 21-40%) too small (*n*≤5).

Recruitment and training practices

- Employers who **recruited new workers from interstate over the previous 12 months** were most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas, in particular problem-solving skills, and initiative & enterprise skills (Table 15).
- Employers who **recruited new workers from overseas over the previous 12 months** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular initiative & enterprise skills (Table 15).
- Employers who did **not employ new workers from interstate over the previous 12 months** were most likely to indicate *lower* levels of capability of aspiring creatives in all skills areas, in particular initiative & enterprise skills, problem-solving skills, job-specific skills, and team work skills (Table 15).
- Employers who did **not employ new workers from overseas over the previous 12 months** were most likely to indicate *lower* levels of capability of aspiring creatives in most skills areas, in particular initiative & enterprise skills (Table 15).

Table 15. Factors influencing employers' views by recruitment locations

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Employed new workers from interstate	3.26	.733	19
Did not employ new workers from interstate	3.06	.827	17
Employed new workers from overseas	3.19	.750	16
Did not employ new workers from overseas	3.22	.795	23
All locations	3.21	.767	39
Team work skills			
Employed new workers from interstate	3.47	.513	19
Did not employ new workers from interstate	3.12	.781	17
Employed new workers from overseas	3.38	.619	16
Did not employ new workers from overseas	3.30	.703	23
All locations	3.33	.662	39
Problem-solving skills			
Employed new workers from interstate	3.26	.653	19
Did not employ new workers from interstate	2.76	.970	17
Employed new workers from overseas	3.12	.885	16
Did not employ new workers from overseas	3.00	.798	23
All locations	3.05	.826	39
Initiative & enterprise skills			
Employed new workers from interstate	3.11	.875	19
Did not employ new workers from interstate	2.47	.717	17
Employed new workers from overseas	3.12	.806	16
Did not employ new workers from overseas	2.65	.832	23
All locations	2.85	.844	39
Learning skills			
Employed new workers from interstate	3.11	.658	19
Did not employ new workers from interstate	2.88	.697	17
Employed new workers from overseas	3.19	.655	16
Did not employ new workers from overseas	2.96	.706	23
All locations	3.05	.686	39
Job-specific skills			
Employed new workers from interstate	3.16	.765	19
Did not employ new workers from interstate	2.76	.752	17
Employed new workers from overseas	3.19	.750	16
Did not employ new workers from overseas	2.91	.793	23
All locations	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

- Employers who preferred to recruit creative graduates with a **Bachelor degree** most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas, in particular job specific skills, and initiative & enterprise skills (Table 16).
- Employers who preferred to recruit creative graduates with a **Diploma/Advanced Diploma (VET/TAFE)** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular problem-solving skills (Table 16).
- Employers who preferred to recruit creative graduates with **'creative talent and/or the necessary job skills'** were most likely to indicate *lower* levels of capability of aspiring creatives in all skills areas, in particular initiative & enterprise skills, problem-solving skills, and job-specific skills (Table 16).

Table 16. Factors influencing employers' views by recruitment preferences (creative graduates)

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Creative talent	3.05	.848	19
Bachelor degree (university)	3.23	.725	13
Diploma/Advanced Diploma (VET/TAFE)	3.50	.548	6
All preferences	3.21	.767	39
Team work skills			
Creative talent	3.21	.713	19
Bachelor degree (university)	3.38	.650	13
Diploma/Advanced Diploma (VET/TAFE)	3.50	.548	6
All preferences	3.33	.662	39
Problem-solving skills			
Creative talent	2.74	.733	19
Bachelor degree (university)	3.23	.927	13
Diploma/Advanced Diploma (VET/TAFE)	3.50	.548	6
All preferences	3.05	.826	39
Initiative & enterprise skills			
Creative talent	2.58	.769	19
Bachelor degree (university)	3.08	.954	13
Diploma/Advanced Diploma (VET/TAFE)	3.00	.632	6
All preferences	2.85	.844	39
Learning skills			
Creative talent	2.95	.780	19
Bachelor degree (university)	3.15	.555	13
Diploma/Advanced Diploma (VET/TAFE)	3.00	.632	.6
All preferences	3.05	.686	39
Job-specific skills			
Creative talent	2.79	.918	19
Bachelor degree (university)	3.23	.599	13
Diploma/Advanced Diploma (VET/TAFE)	3.17	.408	6
All preferences	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Sample sizes for school, Certificate (VET/TAFE) and postgraduate too small ($n \leq 5$).

- Employers who preferred to recruit technical graduates with a **Bachelor degree** were most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas, in particular communication skills, problem-solving skills, and initiative & enterprise skills (Table 17).
- Employers who preferred to recruit technical graduates with a **Diploma/Advanced Diploma (VET/TAFE)** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, except for initiative & enterprise skills and learning skills (Table 17).
- Employers who preferred to recruit technical graduates with **'creative talent and/or the necessary job skills'** were most likely to indicate *lower* levels of capability of aspiring creatives in all skills areas, in particular communication skills (Table 17).

Table 17. Factors influencing employers' views by recruitment preferences (technical graduates)

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Creative talent	3.00	.816	16
Bachelor degree (university)	3.33	.651	12
Diploma/Advanced Diploma (VET/TAFE)	3.50	.756	8
All preferences	3.21	.767	39
Team work skills			
Creative talent	3.19	.750	16
Bachelor degree (university)	3.42	.515	12
Diploma/Advanced Diploma (VET/TAFE)	3.50	.756	8
All preferences	3.33	.662	39
Problem-solving skills			
Creative talent	2.88	.806	16
Bachelor degree (university)	3.33	.651	12
Diploma/Advanced Diploma (VET/TAFE)	3.25	.707	8
All preferences	3.05	.826	39
Initiative & enterprise skills			
Creative talent	2.75	.856	16
Bachelor degree (university)	3.17	.835	12
Diploma/Advanced Diploma (VET/TAFE)	2.62	.744	8
All preferences	2.85	.844	39
Learning skills			
Creative talent	3.00	.816	16
Bachelor degree (university)	3.17	.718	12
Diploma/Advanced Diploma (VET/TAFE)	2.87	.354	8
All preferences	3.05	.686	39
Job-specific skills			
Creative talent	2.88	.885	16
Bachelor degree (university)	3.17	.718	12
Diploma/Advanced Diploma (VET/TAFE)	3.12	.641	8
All preferences	3.03	.778	39

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Sample sizes for school, Certificate (VET/TAFE) and postgraduate too small ($n \leq 5$).

- Employers who indicated it was **'easy/very easy' to recruit the 'right' graduates** were most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas (Table 18).
- Employers who indicated they were **'undecided' about the ease/difficulty in recruiting the 'right' graduates** were most likely to indicate *lower* levels of capability of aspiring creatives in all skills areas, in particular initiative & enterprise skills, job-specific skills, learning skills, and problem-solving skills (Table 18).

Table 18. Factors influencing employers' views by ease/difficulty in finding the 'right' graduates

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Easy/very easy*	3.71	.488	7
Undecided	3.00	.756	8
Difficult/very difficult*	3.00	.679	14
All views	3.17	.711	29
Team work skills			
Easy/very easy*	3.71	.488	7
Undecided	3.38	.518	8
Difficult/very difficult*	3.21	.579	14
All views	3.38	.561	29
Problem-solving skills			
Easy/very easy*	3.57	.787	7
Undecided	2.88	.641	8
Difficult/very difficult*	3.14	.864	14
All views	3.17	.805	29
Initiative & enterprise skills			
Easy/very easy*	3.29	.951	7
Undecided	2.62	.744	8
Difficult/very difficult*	2.86	.770	14
All views	2.90	.817	29
Learning skills			
Easy/very easy*	3.57	.535	7
Undecided	2.75	.463	8
Difficult/very difficult*	3.07	.616	14
All views	3.10	.618	29
Job-specific skills			
Easy/very easy*	3.29	.756	7
Undecided	2.62	.518	8
Difficult/very difficult*	3.00	.679	14
All views	2.97	.680	29

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Responses for 'Easy' and 'Very Easy' combined, and responses for 'Difficult' and 'Very difficult' combined

- Employers who indicated '**sometimes' providing training to aspiring creatives** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular communication skills and learning skills (Table 19).
- Employers who indicated '**never/rarely' providing training to aspiring creatives** were most likely to indicate *lower* levels of capability of aspiring creatives in all skills areas, in particular learning skills and communications skills (Table 19).

Table 19. Factors influencing employers' views by frequency of training

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Never/rarely*	2.86	.900	7
Sometimes	3.50	.527	10
Often/very often*	3.31	.751	13
All training	3.27	.740	30
Team work skills			
Never/rarely	3.29	.488	7
Sometimes	3.60	.516	10
Often/very often	3.38	.650	13
All training	3.43	.568	30
Problem-solving skills			
Never/rarely	3.14	.690	7
Sometimes	3.20	.632	10
Often/very often	3.23	.927	13
All training	3.20	.761	30
Initiative & enterprise skills			
Never/rarely	2.57	.787	7
Sometimes	3.10	.738	10
Often/very often	3.15	.801	13
All training	3.00	.788	30
Learning skills			
Never/rarely	2.57	.787	7
Sometimes	3.40	.516	10
Often/very often	3.15	.555	13
All training	3.10	.662	30
Job-specific skills			
Never/rarely	3.00	.816	7
Sometimes	3.20	.632	10
Often/very often	3.00	.707	13
All training	3.07	.691	30

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

* Responses for 'Never' and 'Rarely' combined, and responses for 'Often' and 'Very Often' combined

Participation in communities of practice/networks, mentoring and internships

- As the majority of employers participated in **physical and online communities of practices**, the capability of aspiring creatives in all skills areas were similar to the overall means for all skills areas (Table 20).

Table 20. Factors influencing employers' views by participation in communities of practice/networks

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Participated in physical communities of practice	3.21	.808	34
Participate in online communities of practice	3.21	.808	34
All participation (Yes and No)	3.20	.797	35
Team work skills			
Participated in physical communities of practice	3.32	.684	34
Participate in online communities of practice	3.32	.684	34
All participation (Yes and No)	3.34	.684	35
Problem-solving skills			
Participated in physical communities of practice	3.09	.830	34
Participate in online communities of practice	3.09	.830	34
All participation (Yes and No)	3.11	.832	35
Initiative & enterprise skills			
Participated in physical communities of practice	2.85	.821	34
Participate in online communities of practice	2.85	.821	34
All participation (Yes and No)	2.89	.832	35
Learning skills			
Participated in physical communities of practice	3.03	.717	34
Participate in online communities of practice	3.03	.717	34
All participation (Yes and No)	3.03	.303	35
Job-specific skills			
Participated in physical communities of practice	3.00	.778	34
Participate in online communities of practice	3.00	.778	34
All participation (Yes and No)	3.03	.785	35

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

- Employers who **mentored aspiring creatives** were most likely to indicate *higher* levels of capability of aspiring creatives in all skills areas, except for job-specific skills (Table 21).
- Employers who did **not mentor aspiring creatives** were most likely to indicate *lower* levels of capability of aspiring creatives in most skills areas, in particular initiative & enterprise skills (Table 21).

Table 21. Factors influencing employers' views by whether or not employers mentor aspiring creatives

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Yes	3.25	.716	20
No	3.13	.915	15
All mentoring (Yes and No)	3.20	.797	35
Team work skills			
Yes	3.40	.598	20
No	3.27	.799	15
All mentoring (Yes and No)	3.34	.684	35
Problem-solving skills			
Yes	3.25	.786	20
No	2.93	.884	15
All mentoring (Yes and No)	3.11	.832	35
Initiative & enterprise skills			
Yes	3.05	.759	20
No	2.67	.900	15
All mentoring (Yes and No)	2.89	.832	35
Learning skills			
Yes	3.05	.605	20
No	3.00	.845	15
All mentoring (Yes and No)	3.03	.707	35
Job-specific skills			
Yes	3.00	.649	20
No	3.07	.961	15
All mentoring (Yes and No)	3.03	.785	35

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

- Employers who **offered internships** were most likely to indicate *higher* levels of capability of aspiring creatives in most skills areas, in particular problem-solving skills, and initiative & enterprise skills (Table 22).
- Employers who did **not offer internships** were most likely to indicate *lower* levels of capability of aspiring creatives in most skills areas, in particular initiative & enterprise skills, problem-solving skills, and job-specific skills (Table 22).

Table 22. Factors influencing employers' views by whether or not employers offer internships

Occupations	Mean	Standard deviation *(SD)*	Sample size (*n*)
Communication skills			
Yes	3.33	.658	21
No	3.00	.961	14
All internships (Yes and No)	3.20	.797	35
Team work skills			
Yes	3.33	.577	21
No	3.36	.842	14
All internships (Yes and No)	3.34	.684	35
Problem-solving skills			
Yes	3.33	.730	21
No	2.79	.893	14
All internships (Yes and No)	3.11	.832	35
Initiative & enterprise skills			
Yes	3.10	.700	21
No	2.57	.938	14
All internships (Yes and No)	2.89	.832	35
Learning skills			
Yes	3.14	.655	21
No	2.86	.770	14
All internships (Yes and No)	3.03	.707	35
Job-specific skills			
Yes	3.19	.602	21
No	2.79	.975	14
All internships (Yes and No)	3.03	.785	35

Higher level of capability (0.20 above mean) Lower level of capability (0.20 below mean)

Section summary

This section sought to address the third objective of this report: **Identify the factors that influence employers' views of the capability of aspiring creatives.** By doing so, the project team was able to identify particular factors that enhance or inhibit employers' views of the capabilities of aspiring creatives.

Table 23 on the next page summarises key findings from this section by *skills area* and *factor*. Here are three examples of findings drawn from this table.

- *Team work skills:*
  - Enabling factors - Employers who employ graphic designers and animators; find it 'easy/'very easy' to recruit the 'right' graduates; are from the Software and Digital Content sector/segment; and/or are established firms (operating for 6 to 10 years) were most likely to indicate aspiring creatives had *higher* level team work skills.
  - Inhibiting factors - Employers who employ photographers; are relatively new firms (operating for less than five years); do not employ aspiring creatives; are from the Architecture, Design & Visual Arts sector/segment; and/or have not recruited workers from interstate over the previous 12 months were most likely to indicate aspiring creatives had *lower* level team work skills.
- *Number of workers*:
  - Enabling factors - Large employers with over 50 workers were most likely to indicate *higher* levels of capability of aspiring creatives in the skills areas of team work skills, problem-solving skills, initiative & enterprise skills, and learning skills.
  - Inhibiting factors - Small employers with less than 10 workers were most likely to indicate *lower* levels of capability of aspiring creatives in the skills area of initiative & enterprise skills.
- *Internships:*
  - Enabling factors – Employers who offered internships were most likely to indicate *higher* levels of capability of aspiring creatives in the skills areas of problem-solving skills and initiative & enterprise skills.
  - Inhibiting factors - Employers who did not offer internships were most likely to indicate *lower* levels of capability of aspiring creatives in the skills areas of problem-solving skills, initiative & enterprise skills, and job-specific skills.

The factors common to most of the six skills areas, highlighted in grey in Table 23, are as follows:

- *Enabling factors* - Employers who employ visual artists and animators, and/or find it 'easy/very easy' to recruit the 'right' graduates were most likely to indicate *higher* levels of capability of aspiring creatives.
- *Inhibiting factors* - Employers from the Architecture, Design and Visual Arts sector and/or have operated for less than five (5) years were most likely to indicate *lower* levels of capability of aspiring creatives.

Table 23. Factors influencing employers' views of aspiring creatives by skill area (0.20 difference from mean)

Higher levels of capability/enhancing factors	Lower levels of capability/inhibiting factors
Team work skills	
Employs graphic designers (0.47)	Employs photographers (-0.33)
Easy/very easy to recruit the right graduates (0.33)	Years operating: < 5 years (-0.26)
Employs animators (0.27)	Proportion of staff who are aspiring creatives: 0% (-0.22)
Software and Digital Content sector/segment (0.27)	Architecture, Design & Visual Arts sector/segment(-0.22)
Operating for 6-10 years (0.26)	Did not recruit workers from interstate (-0.21)
Communication skills	
Employs visual artists (0.62)	Frequency of training: 'Never/Rarely' (-0.41)
Employs animators (0.59)	Years operating: < 5 years (-0.35)
Easy/very easy to recruit the right graduates (0.54)	Recruitment preference for *Technical* Graduates: Creative talent (-0.21)
Operating for 6-10 years (0.32)	Employs photographers (-0.21)
Employs writers (0.29)	
Recruitment preference for *Creative* Graduates: Diploma/Advanced Diploma (VET/TAFE) (0.29)	
Recruitment preference for *Technical* Graduates: Diploma/Advanced Diploma (VET/TAFE) (0.29)	
Proportion of staff who are aspiring creatives: 11-20% (0.23)	
Frequency of training: 'Sometimes' (0.23)	
Problem solving skills	
Employs visual artists (0.62)	Years operating: < 5 years (-0.38)
Employs animators (0.45)	Did not offer internships (-0.32)
Recruitment preference for *Technical* Graduates: Bachelor degree (0.28)	Recruitment preference for *Creative* Graduates: Creative talent (-0.31)
Easy/very easy to recruit the right graduates (0.40)	Employs photographers (-0.30)
Employs over 50 workers (0.35)	Did not recruit workers from interstate (-0.29)
Recruitment preference for *Creative* Graduates: Diploma/Advanced Diploma (VET/TAFE) (0.31)	Undecided about the ease/difficulty in recruiting the right graduates (-0.29)
Located in New South Wales (0.31)	Located in Victoria (-0.20)
Proportion of staff who are aspiring creatives: 11-20% (0.28)	
Offered internships (0.22)	
Recruited workers from interstate (0.21)	
Software and Digital Content sector/segment (0.21)	
Recruitment preference for *Technical* Graduates: Diploma/Advanced Diploma (VET/TAFE) (0.20)	
Initiative & enterprise skills	
Employs visual artists (0.65)	Did not recruit workers from interstate (-0.38)
Easy/very easy to recruit the right graduates (0.39)	Years operating: < 5 years (-0.34)
Employs animators (0.35)	Did not offer internships (-0.32)
Employs over 50 workers (0.34)	Architecture, Design & Visual Arts sector/segment (-0.29)
Recruitment preference for *Technical* Graduates: Bachelor degree (0.32)	Proportion of staff who are aspiring creatives: 0% (-0.29)
Recruited workers from overseas (0.27)	Undecided about the ease/difficulty in recruiting the right graduates (-0.28)

Higher levels of capability/enhancing factors	Lower levels of capability/inhibiting factors
Proportion of staff who are aspiring creatives: 11-20% (0.26)	Recruitment preference for *Creative* Graduates: Creative talent (-0.27)
Recruited workers from interstate (0.26)	Recruitment preference for *Technical* Graduates: Diploma/Advanced Diploma (VET/TAFE) (-0.23)
Recruitment preference for *Creative* Graduates: Bachelor degree (0.23)	Employs less than 10 workers (-0.22)
Offered internships (0.21)	Did not mentor aspiring creatives (-0.22)
	Did not recruit workers from overseas (-0.20)
Learning Skills	
Easy/very easy to recruit the right graduates (0.47)	Frequency of training: 'Never/Rarely' (-0.53)
Employs visual artists (0.45)	Architecture, Design & Visual Arts sector/segment (-0.38)
Employs over 50 workers (0.35)	Undecided about the ease/difficulty in recruiting the right graduates (-0.35)
Employs writers (0.33)	Years operating: < 5 years (-0.33)
Frequency of training: 'Sometimes' (0.30)	Proportion of staff who are aspiring creatives: 1-10% (-0.27)
	Employs less than 10 workers (-0.21)
Job-specific skills	
Employs visual artists (0.64)	Architecture, Design & Visual Arts sector/segment (-0.36)
Software and Digital Content sector/segment (0.47)	Undecided about the ease/difficulty in recruiting the right graduates (-0.35)
Employs animators (0.37)	Did not recruit workers from interstate (-0.27)
Located in New South Wales (0.33)	Recruitment preference for *Creative* Graduates: Creative talent (-0.24)
Proportion of staff who are aspiring creatives: 11-20% (0.33)	Did not offer internships (-0.24)
Easy/very easy to recruit the right graduates (0.32)	Located in Queensland (-0.23)
Operating for 6-10 years (0.30)	
Recruitment preference for *Creative* Graduates: Bachelor degree (0.20)	

Conclusion

This report presents findings from the **60Sox Employer Survey** that gathered data from 50 employers in Australia's Creative Digital Industries about the employability of aspiring creatives i.e. recent graduates and/or people with less than two years industry experience. The survey included questions on employer characteristics, recruitment and training practices, employers' views of the capabilities of aspiring creatives, and participation in communities of interest/networks, mentoring and internships.

The main purpose of the project was to identify capability gaps of aspiring creatives as well as those employer and workforce characteristics that enhance or inhibit the ability of aspiring creatives to find work in Australia's Creative Digital Industries. The project team set itself three objectives to achieve this purpose:

1. Describe the characteristics and practices of employers.
2. Explore the views of employers and the views of aspiring creatives in relation to the capabilities of aspiring creatives.
3. Identify the factors that influence employers' views of the capabilities of aspiring creatives.

The project team used two measures to identify capability gaps. The first measured the differences between employers' views of the 'importance' of skills and attributes to their workplaces and their views of the 'capabilities' of aspiring creatives. The second measured the differences between employers' views of the capabilities of aspiring creatives and aspiring creatives' views of their own capabilities, obtained from an earlier survey of 507 aspiring creatives.

To identify the factors that influence employers' views of the capability of aspiring creatives, the project team used criteria to select five (5) skills for analysis - team work skills, communication skills, problem-solving skills, initiative & enterprise skills, and learning skills. They also selected job-specific skills due to ongoing concerns about specialist skills gaps. The project team used descriptive analysis to identify *enabling* factors that contribute to employers' views that aspiring creatives have *higher* capabilities in particular skills areas; and *inhibiting* factors that contribute to employers' views that aspiring creatives have *lower* capabilities in particular skills areas. The project team was then able to identify enabling and inhibiting factors common to most of the skills areas.

Notable findings for this project are as follows:

- Over 80% of employers indicated that aspiring creatives only accounted for between 0% and 20% of all workers.
- Employers were more attracted to 'creative talent and/or the necessary job skills' than qualifications when employing creative graduates and technical graduates.
- Employers were most likely to indicate that it was 'difficult' to recruit aspiring creatives with the 'right' skills and attributes.
- Over the previous 12 months, employers had recruited around half of their new workers from interstate and overseas.
- Employers were most likely to indicate the capabilities of aspiring creatives for all 15 skills and attributes included in the employer survey were below their expectations when compared to the level of importance they placed on these skills and attributes to their workplaces.

- When compared to the views of employers, aspiring creatives over-rated their capabilities for 13 of the 15 skills and attributes as well as their software skills; and slightly under-rated their capabilities in the areas of business skills, positive self-esteem and motivation.
- The two measures of capability gaps identified the largest gaps of aspiring creatives in the areas of problem-solving skills, communication skills, initiative & enterprise skills, team work skills, learning skills, self-management skills, and careers goals/planning skills.
- Common enabling and inhibiting factors, based on the analysis of six skills areas, are as follows:
  - *Enabling factors* - Employers who employ visual artists and animators, and/or find it 'easy/very easy' to recruit the 'right' graduates were most likely to indicate *higher* levels of capability of aspiring creatives.
  - *Inhibiting factors* - Employers from the Architecture, Design and Visual Arts sector and/or have operated for less than five (5) years were most likely to indicate *lower* levels of capability of aspiring creatives.

Attachment 1: Employer Survey

SECTION 1

The 60Sox Employer Survey is the industry-based complement to another 60Sox survey that investigated what 500 aspiring creatives (students, graduates and emerging professionals) think about getting a job in the Creative Industries. The employer survey aims to find out what employers think about employing aspiring creatives. We will overlay the perspectives of employers and employees to identify skills deficiencies and any other issues that are inhibiting the ability of aspiring creatives to make successful education-to-work transitions.

This Queensland University of Technology (QUT) project is funded by the Australian Research Council in partnership with QUT's Institute for Creative Industries and Innovation (iCi); South Australian Department of Further Education, Employment, Science and Technology (DFEEST); tafeSA; Queensland Department of Education, Training and the Arts (DETA); Queensland Department of the Premier and Cabinet; Australian Interactive Media Industry Association (AIMIA); Billy Blue College of Design; and South Bank Institute of TAFE.

As an employer in Australia's Creative Industries, we invite you to participate in this survey. **It should take you no more than 5 minutes to complete**.

Your participation in this project is voluntary. Your decision to participate will in no way impact upon your current or future relationship with QUT or project partners. Because we do not ask for your name and contact details on the survey (unless you want to receive information about research findings), we will not be able to identify you or the organisation you work for. In this case, the completion of the survey is accepted as an indication of your consent to participate. If you do agree to participate, you can withdraw from participation at any time during the project without comment or penalty. All completed surveys are securely stored at QUT's Kelvin Grove campus in Brisbane.

QUT is committed to researcher integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact the QUT Research Ethics Officer on 3138 2340 or ethicscontact@qut.edu.au. The Research Ethics Officer is not connected with the project and can facilitate a resolution to your concern in an impartial manner.

SECTION 2

1. Which sector/segment in the Creative Industries is this organisation in?

- ☐ Advertising and Marketing
- ☐ Architecture, Design and Visual Arts
- ☐ Film, TV and Radio
- ☐ Music and Performing Arts
- ☐ Publishing
- ☐ Software and Digital Content

2. What type of organisation is this?

- [ ] Government
- [ ] Business
- [ ] Non-profit
- [ ] Self-employed (e.g., subcontractor)

Other, please specify

3. Where is this organisation located?

- ○ New South Wales
- ○ Victoria
- ○ Queensland
- ○ South Australia
- ○ Western Australia
- ○ Tasmania
- ○ Australian Capital Territory
- ○ Northern Territory

4. How long has this organisation existed for?

- ○ Less than 2 years
- ○ 2-5 years
- ○ 6-10 years
- ○ Over 10 years

5. How many workers does this organisation employ?

- ○ 0-10 workers
- ○ 11-50 workers
- ○ 51-100 workers
- ○ More than 100 workers

6. What are the main Creative Industries (CI) occupations in this organisation?

- [ ] Animators
- [ ] Photographers
- [ ] Visual Artists
- [ ] Writers
- [ ] Musicians/sound technicians
- [ ] Graphic designers
- [ ] Programmers

Other (please specify)

7. What percentage of total workers are employed full-time (%)

%

8. Over the previous 12 months, has this organisation employed workers from:

	Yes	No
Interstate		
Overseas		

9. Over the previous 12 months, how often has this organisation provided training to workers?

	Never	Rarely	Sometimes	Often	Very often
Options					

10. If this organisation has provided training, what type of training did it provide?

11. What proportion of total workers are recent graduates and/or people with less than 2 years industry experience?

- None
- 1-10%
- 11-20%
- 20-40%
- 40-60%
- 60-80%
- 80-100%

12. What is the minimum qualification this organisation expects when employing recent 'creative' graduates and/or people with less than 2 years industry experience?

- Secondary school
- Certificate (VET/TAFE)
- Diploma/Advanced Diploma (VET/TAFE)
- Undergraduate/Bachelor degree (university)
- Postgraduate (university)
- Doesn't matter as long as they have creative talent and/or necessary job skills

Other (please specify)

13. What is the minimum qualification this organisation expects when employing recent 'technical' graduates and/or people with less than 2 years industry experience?

- Secondary school
- Certificate (VET/TAFE)
- Diploma/Advanced Diploma (VET/TAFE)
- Undergraduate/Bachelor degree (university)
- Postgraduate (university)
- Doesn't matter as long as they have technical talent and/or necessary job skills

SECTION 3

If this organisation employs (or has employed) recent graduates and/or people with less than 2 years industry experience:

a) rate the importance of each of the following skills to this organisation

b) rate the capability of these people (on average) for each of the following skills

1. Communication skills that contribute to productive and harmonious relations between employees and customers

	None	Low	Moderate	High
Importance				
Capability				

2. Team work skills that contribute to productive working relationships and outcomes

	None	Low	Moderate	High
Importance				
Capability				

3. Problem-solving skills that contribute to productive outcomes

	None	Low	Moderate	High
Importance				
Capability				

4. Initiative and enterprise skills that contribute to innovative outcomes

	None	Low	Moderate	High
Importance				
Capability				

5. Planning and organising skills that contribute to long-term and short-term planning

	None	Low	Moderate	High
Importance				
Capability				

6. Self-management skills that contribute to employee satisfaction and growth

	None	Low	Moderate	High
Importance				
Capability				

7. Learning skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

8. Technology skills that contribute to effective executive of tasks

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

9. Job-specific skills i.e. the level of skills this organisation expects these people to have to do their job effectively

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

10. Business skills e.g., pitching, awareness of IP/creative commons, raising capital, attracting investment, networking, promotion

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

11. Career goals/planning

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

12. Personal presentation

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

13. Positive self-esteem

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

14. Motivation

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

15. Adaptability

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

16. Other (1), please specify:

17. Other (1)

	None	Low	Moderate	High
Importance	○	○	○	○
Capability	○	○	○	○

18. Other (2), please specify:

SECTION 4

If this organisation employs (or has employed) recent graduates and/or people with less than 2 years industry experience:

1. Please indicate at least two of the main software programmes that your organisation regularly uses

a

b

c

d

e

2. Rate the capability of these people (on average) in using this software

	Low	Moderate	High
a	○	○	○
b	○	○	○
c	○	○	○
d	○	○	○
e	○	○	○

3. Indicate at least two of the main software programmes (if different to above) that recent graduates and/or people with less than 2 years industry experience should know if they want to work for this organisation?

a

b

c

d

e

SECTION 5

1. Of the recent graduates and/or people with less than 2 years industry experience this organisation has employed over the previous 12 months in a creative role (if applicable), which occupations do they most closely represent?

- Animators
- Photographers
- Visual Artists
- Writers
- Musicians/sound technicians
- Graphic designers
- Programmers
- Not Applicable
- Other (please specify)

2. Which of the below occupations would your organisation likely attempt to employ recent graduates and/or people with less than 2 years industry experience over the next 12 months?

- Animators
- Photographers
- Visual Artists
- Writers
- Musicians/sound technicians
- Graphic designers
- Programmers
- Not Applicable
- Other (please specify)

3. If this organisation employs (or has employed) recent graduates and/or people with less than 2 years industry experience, how often did it provide them with training over the previous 12 months?

- Never
- Rarely
- Sometimes
- Often
- Very often
- Not Applicable

4. If this organisation did train recent graduates/and or people with less than 2 years industry experience over the previous 12 months, what type of training was provided?

SECTION 6

1. To what extent does this organisation use any of these methods when recruiting recent graduates and/or people with less than 2 years industry experience?

	Never	Rarely	Sometimes	Often	Very often
Word of mouth	○	○	○	○	○
Advertising positions on organisation's website	○	○	○	○	○
Recruitment agencies	○	○	○	○	○
Recruitment websites	○	○	○	○	○
Newspaper advertisements	○	○	○	○	○
Networks	○	○	○	○	○
Direct approach	○	○	○	○	○
Through education institution	○	○	○	○	○

If Other, please specify

2. Over the previous 12 months, how difficult/easy has it been to find recent graduates and/or people with less than 2 years industry experience with the "right" skills and attributes?

- ○ Very easy
- ○ Easy
- ○ Undecided
- ○ Difficult
- ○ Very
- ○ Have not employed any recent graduates and/or people with less than 2 years industry experience over the previous 12 months

3. Over the previous 12 months, has this organisation:

	Yes	**No**
Participated in online communities of interest/networks	○	○
Participated in physical communities of interest/networks e.g. events	○	○
Mentored students, recent graduates and/or people with less than 2 years industry experience	○	○
Offered internships	○	○
Recruited new staff	○	○

SECTION 7

1. Do you have any final comments about this survey?

2. If you want to know about the results of the survey, please enter:

Name:	
Company:	
Email Address:	
Phone Number:	

Thank you for your participation in this survey.